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New York City Accounts

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# SPECIAL EXAMINATION

OF THE

## Accounts and Methods

OF THE OFFICE OF THE

President of the Borough of Manhattan

BY THE



Commissioners of Accounts

DIRECTED BY THE

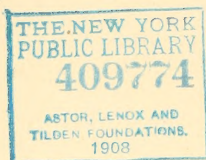
MAYOR OF THE CITY OF NEW YORK

ON THE 3D DAY OF DECEMBER, 1906

6078

Volume I.

*John*





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IN THE MATTER  
*of*  
A Special Examination by the  
COMMISSIONERS OF ACCOUNTS  
OF THE CITY OF NEW YORK  
of the accounts and methods of  
the Office of the President of the  
Borough of Manhattan, directed  
by the Mayor of The City of  
New York, on the 3rd day of  
December, 1906.

} VOL. I.

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At the City Hall in the Borough of Manhattan, City  
of New York, on the 8th day of April, 1907.

Present—HON. JOHN C. HERTLE, HON. GEORGE C.  
VON SKAL, Commissioners of Accounts of The City of  
New York.

The Commissioners were attended by Hon. William B.  
Ellison, Counsel to the Corporation of the City of New  
York, and John Purroy Mitchel, Special Assistant Cor-  
poration Counsel; and by Hon. Martin W. Littleton, of  
counsel for John F. Ahearn, the President of the  
Borough of Manhattan.

Commissioner Hertle made the following statement  
and ordered that it be written out as part of the record:

This is a special examination being made by the Com-  
missioners of Accounts of The City of New York, of the  
accounts and methods of John F. Ahearn, the President  
of the Borough of Manhattan.

Certain statements having been made in a pamphlet published by the City Betterment Bureau of this City, criticizing the administration of John F. Ahearn, the President of the Borough of Manhattan, the said John F. Ahearn thereupon requested the Mayor of The City of New York, the Hon. George B. McClellan, to direct the Commissioners of Accounts to make a special examination of the accounts and methods of the office of said President of the Borough of Manhattan.

The Mayor on the 3d day of December, 1906, accordingly directed the Commissioners of Accounts to make such an examination, such direction by the Mayor being made pursuant to Section 119 of the Greater New York Charter, under which authority this examination is being made.

The Commissioners of Accounts thereupon instituted and entered upon the work of such special examination, and applied to the Corporation Counsel of The City of New York, William B. Ellison, for advice and assistance in the matter of questions of law arising during the course of the examination. The Corporation Counsel has, from time to time, advised the Commissioners of Accounts, and has appointed John Purroy Mitchel, as Special Assistant Corporation Counsel for the purposes of this examination, and assigned him to aid and assist the Commissioners of Accounts therein.

The Commissioners of Accounts have, from the commencement of such examination, to the present time, been engaged in an investigation into the accounts of said President of the Borough of Manhattan, and of the methods of said Borough President in administering the said office, and the several departments thereof. The examination has now reached a stage at which it is deemed advisable to hold hearings, in order that information may be elicited on the subject of the conduct of the said office of the President of the Borough of Manhattan, that can-

not be obtained from an examination of the records of his office, or of other records to which the Commissioners have access. At these hearings any person who is possessed of information that may, in the judgment of the Commissioners of Accounts, or their legal adviser, the Corporation Counsel, be of aid or assistance in this examination, will be heard upon oath.

The hearings will be conducted and regulated by the Commissioners of Accounts with the aid, assistance, and legal advice of the Corporation Counsel, and such assistants as he may designate for that purpose.

Commissioner Hertle then announced that the Commissioners had appointed Clarence Bonyngue as the stenographer of the Board for the purpose of taking testimony at the public hearings herein.

The said Clarence Bonyngue was thereupon sworn by the Commissioners to faithfully take and record the evidence and proceedings herein.

The Corporation Counsel invited Mr. Henry Bruere, Secretary of the Bureau of City Betterment, to co-operate with the Special Assistant Corporation Counsel in the submission of facts for the consideration of the Commissioners of Accounts.

MR. ELLISON—Mr. Commissioners, we appear here this morning at the opening of an examination of the affairs of the Department of the President of the Borough of Manhattan supplemental to your examination of the records of that office. My understanding of the situation is that you have substantially completed the examination of the records and that it is now deemed wise that we supplement that examination by some oral hearings at which there will be an examination of witnesses, and with that in view I shall ask to have called as the first witness the President of the Borough, Mr. Ahearn.



Mr. LITTLETON—Mr. Commissioners, last Friday—Thursday or Friday—President Ahearn called my attention to the fact that he had shortly before that time received a notice of the fact that there would be a public hearing in this Chamber by your Commissioners, substantially containing the statement which the Corporation Counsel has just made. As rapidly as possible I undertook to get the drift of this investigation, for inasmuch as the hearing is public and inasmuch as it may be hostile, it was thought well by the President of the Borough that an old associate and friend as well as counsel of his should take charge of his interests before this Commission, and I am here representing the President of the Borough.

On account of the shortness of the notice which came to him—not short in ordinary circumstances, but short to a man occupying such an important position as he is occupying, with his engagements ahead, I called upon the Corporation Counsel and advised him that I would like to ask the Commissioners to adjourn this proceeding for one week, and he very kindly advised me of the fact that he would not object but would concur in any such action of the Commission.

I desire to add to that this request: The President of the Borough will be called to the witness stand, at least that is the advice of the notice and the declaration of the counsel representing this Commission. I think it nothing but fair that in a great Department such as he presides over, the duties of which must be discharged through other hands and other minds and other tongues, and the large part of which is made of record in that Department, that he should be apprised in some fashion before he be subjected to public hearings of the matters about which this Commission wishes to inquire, so that he may be able, if he does take this stand, to answer these questions, he may be able to answer them intelligently and with fairness to himself and not be put to the em-

barrassment of being constantly referring to the records of his Department in order to get that information which, if you told him now what you wished, he would undoubtedly be able to get and satisfy you. I think that is nothing but fair. There are no charges here, there was absolutely nothing in the notice to apprise him of the purpose of this public hearing, there was indeed no statement of the reason why the Commissioners of Accounts resolved themselves into a public hearing. If this is to be a public hearing of a quasi tribunal, at which I dare say there will be order and system of procedure, it seems nothing but fair, as in all proceedings, that the man who is to be called should be apprised in some sense about the things he is to be asked.

I therefore request the Commissioners of Accounts through their counsel to furnish the President of the Borough either with charges, if there be charges lingering in their minds, or if there be no charges, then with a declaration of what they wish to obtain from his office in order that he may bring that here in the course of human events, if that action becomes necessary.

Mr. ELLISON—Messrs. Commissioners, I quite agree with the remarks made by Mr. Littleton to this extent, I do not think Mr. Ahearn should be put on the witness stand here without some general notice of the subject upon which he is to be examined. Of course his Department, great as it is, does cover a variety of the phases of our municipal life, and I do not think it would be fair to him to put him upon the stand and then examine him from one Department or Bureau to another and so on, so it will be a pleasure to me to furnish him with the general subject-matter upon which I wish to examine him. Of course I know the President of the Borough does not ask that I give him the details of my examination, but to refer him generally to the subject-matter upon which he will be examined so he may prepare him-

self and get the records available in order that we will not be delayed. Otherwise we might go into the matter, we will say, of the Building Department or Department of Highways, with which he personally might not be familiar, and it would simply necessitate a postponement on our part to enable him to prepare himself. Now, I shall anticipate that by giving him, so far as we can, the general subject-matter upon which we wish to examine.

Mr. LITTLETON—I think that will be quite satisfactory, because you could see how utterly at sea a man at the head of a Department would be if you said to him, What is the last report from one of your subordinates; he could not tell you, he would have to look it up.

Adjourned to April 15, 1907, at 10.30 A. M.

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CITY HALL—BOROUGH OF MANHATTAN, }  
 NEW YORK, April 15, 1907. }

Met pursuant to adjournment.

Present—Hons. JOHN C. HERTLE and GEORGE C. VON SKAL, Commissioners of Accounts; and Mr. ELLISON, Mr. MITCHELL, Mr. BRUERE and Mr. LITTLETON.

Mr. ELLISON—Is the President of the Borough coming over or are you going to state your position?

Mr. LITTLETON—I am going to make a further preliminary request, Mr. Corporation Counsel.

Mr. ELLISON—We are ready.

Mr. LITTLETON—Messrs. Commissioners, at the last session of your Board I requested that if this hearing was for the purpose of conducting an investigation on the charges that had been made or were in the minds of the Commissioners or of anyone else, that those charges be formally stated; or if the investigation was of a special



character and was simply for the purpose of ascertaining the facts in connection with the Borough government and its Departments, I then requested in order that those facts might be submitted, if it were deemed legal and proper to submit them, that a notice of the scope of the investigation and of the general purpose of it be served upon me or my client so as to apprise him, as in ordinary investigations, what facts he would be expected to answer.

You will understand, Messrs. Commissioners, that that request was perfectly proper and natural in view of the fact that you would not have the power nor would it be within the legitimate scope of this investigation to inquire into the policy of and administration of an elective officer, which policy was committed to him by virtue of his election. That cannot be called in question, I take it, at least by the Commissioners of Accounts.

The Corporation Counsel, on my request having been made, at the last hearing replied, according to the record, as follows:

“I quite agree with the remarks made by Mr. Littleton to this extent, I do not think Mr. Ahearn should be put on the witness stand here without some general notice of the subject upon which he is to be examined. Of course his Department, great as it is, does cover a variety of phases of our municipal life, and I do not think it would be fair to him to put him upon the stand and then examine him from one Department or Bureau to another and so on, so it will be a pleasure to me to furnish him with the general subject-matter upon which I wish to examine him. Of course I know the President of the Borough does not ask that I give him the details of my examination, but to refer him generally to the subject-matter upon which he will be examined, so he may prepare himself and get the records available in order that we will not be delayed. Other-

wise we might go into the matter, we will say, of the Building Department or Department of Highways, with which he personally might not be familiar, and it would simply necessitate a postponement on our part to enable him to prepare himself. Now I shall anticipate that by giving him, so far as we can, the general subject-matter upon which we wish to examine."

Following that statement and the adjournment of the Commission, I received from Mr. John Purroy Mitchel, special counsel, on April 9, the following notice:

"Pursuant to the promise of Hon. William B. Ellison, the Corporation Counsel, made in answer to your verbal request preferred yesterday morning at the opening of the hearing in connection with the special examination of the accounts and methods of the office of the President of the Borough of Manhattan, I beg to advise you that the examination of Mr. Ahearn will open with a general inquiry into the organization and methods of administration of his office. Following this we will take up the Bureau of Highways."

I called the attention of Mr. Mitchel informally at the time of the letter or since the delivery of the letter to the fact that I took it that that was not as fair and full a statement of the purpose of the inquiry as so important an inquiry required. I recurred in my own mind to the fact that when the Interstate Commerce Commission, a body of large power and proportion, proposed to investigate, for instance, the doings of the railroads—in order to facilitate that investigation, however hostile it might have been, it was their practice to apprise the men called in advance of the scope and the line of the inquiry. If there are things, for instance, before you now that you have ascertained by the four months' investigation which you have made according to the record, if you have re-

ports partially complete, or, as Mr. Ellison said, reports practically completed but for the supplemental oral examination, if you have all of those things, as I know you have, on file in your office and I am told presented to His Honor the Mayor, I take it that from those you desire to conduct an examination about the facts which those reports have developed, and I take it that it would be nothing but fair and nothing but legitimate within the purview of this examination if those reports or copies of them were furnished to the President of the Borough in order that he might be able to meet and explain, if he undertook to do so, any of the questions raised or any of the facts alleged to have been discovered.

I therefore, Messrs. Commissioners, renew my request, upon the insufficiency of the notice here made or served, for the information necessary to conduct this examination, and until that is done I should ask the adjournment of the Commission for the purpose of permitting my client and me to know what those reports contain and what the force and shape of this investigation is to be and what the subject-matters are upon which you propose to interrogate. I think that is nothing but fair to the second highest elective officer of The City of New York, who is before a Commission that has already for four months delved into every nook and corner of his office and of every Bureau and of every subordinate and has in its files to-day a written report of the result of that investigation.

Mr. ELLISON—Messrs. Commissioners, there has been no attempt in this proceeding to make charges against the President of the Borough. The result of this examination will probably reveal facts that will or will not warrant the making of charges before the proper tribunal, the Governor. The Mayor has nothing to do with making charges, he has directed you as Commissioners of Accounts to make an investigation of the affairs of this Department. When that examination has been made and you have reported, I assume it will be for the Mayor

to decide whether he should go further and present to the Governor charges upon which Mr. Ahearn will be brought to trial. So that at this stage and under these proceedings there are no charges pending, none whatever, and no attempt has been made to make any.

Now, as to the sufficiency of the notice, if I recall its terms—it was presented to me by Mr. Mitchel before he handed it to my friend Mr. Littleton, and in it he says, “I beg to advise you that the examination of Mr. Ahearn will open with a general inquiry into the organization and methods of administration of his office.” That means the subsidiary Bureaus below him and the heads of which he has appointed to have charge and direction and control over those Bureaus. It would include how far, if at all, he gave his personal care to the management of those Bureaus and their control and direction, or whether having made the appointment he felt secure in his appointees and left them, because it will become a very important factor in this investigation as to whether, other than the legal responsibility, it will rest upon the President of the Borough for the acts of his appointees or whether there will be a personal knowledge on his part of what has been done, as we understand the facts to be, in these various Bureaus. So that I think upon that phase of the matter the notice is ample, and it can do no harm besides, because if he be met with a subject with which he is not familiar, this Commission will, I know, and it certainly would have my approval in doing so, grant him time to investigate any fact or investigate any records that may be necessary to enable him to testify intelligently.

The notice then proceeds to say that we will then take up the Bureau of Highways. Now, the Bureau of Highways is a great Bureau, but what more specific could we furnish than that, what more specific would it be safe for us to furnish, unless we furnished the evidence that we think we have. Now, I submit that the notice is am-

ple, that the gentleman on the other side has had full opportunity, he has had a week, and I must press the Commission to deny the application for a further postponement of the hearing.

MR. LITTLETON—Messrs. Commissioners, the Corporation Counsel has said in effect that this investigation may be for the purpose of preparing charges against the President of the Borough to lay before the Governor—that it may be for that purpose. I had not supposed before that there was anything either published or unpublished which required anybody to take the position that the President of the Borough should be charged with anything before the Governor of the State. Surely if this is the purpose of this investigation, it is then clearly a question as to whether or not you should not apprise the President of the Borough of the facts which you have in your possession, which, he says, he should not be required to disclose.

If you propose to make this the basis of charges before the Governor of the State against my client, and if that is the at last revealed purpose of this Commission, then I insist more strenuously, Messrs. Commissioners, that in so grave a matter as that it will be highly unwarrantable and unjust that you should call upon the President of the Borough to take the witness stand and take an oath and testify for the purpose of enabling you to more carefully prepare charges which you have back in your office now and there certainly under the suggested intention of being framed into charges before the Governor of the State.

I desire, also, if the Commissioners please, to ask you if you have, and it is subject to my inspection, the letter of the Mayor directing you to continue this investigation. May I have that for a moment. I do not wish to take it away.



Mr. ELLISON—Have you it, Messrs. Commissioners?

Commissioner VON SKAL—Yes, sir (handing paper to Mr. Littleton).

Mr. LITTLETON—I want to call your attention to one of the things here, Mr. Corporation Counsel. This letter from His Honor the Mayor, dated December 3, directing the investigation, which says: “Make a careful and exhaustive examination of the affairs of his Department, and report the same to me as soon as concluded,” was in response to a letter which the President of the Borough wrote to him, or which succeeded in point of time the writing and delivery of that letter.

Now, then, much as it has been denied that this examination is without charges, the fact remains that upon your record where you announced your purpose on the opening day is this statement: “Certain statements having been made in a pamphlet published by the City Betterment Bureau of this city, criticising the administration of John F. Ahearn, the President of the Borough of Manhattan, the said John F. Ahearn thereupon requested the Mayor of The City of New York, the Hon. George B. McClellan, to direct the Commissioners of Accounts to make a special examination of the accounts and methods of the office of said President of the Borough of Manhattan.”

In the pamphlet which I hold in my hand there are charges which while they disclaim any purpose of attributing any moral turpitude or anything of that sort, they are charges that in the Bureau of Highways, in the Bureau of Public Buildings and Offices and in the general purchase of supplies—there are charges of wastefulness, extravagance and inefficiency. Now, it is upon these charges, voluminous, disorderly, incoherent, not furnishing the facts but conclusions, drawn by an outside association—a very respectable association so far as I have anything to say, but irresponsible so far as the law is

concerned—it is upon these charges in their vague and indefinite scope that you have arraigned the President of the Borough to-day, and that is what you mean when you make the statement here that you are going to try him or you are going to investigate this thing, you are going to investigate the charges that are made here.

Now, I call your attention to the fact that after these charges were made in this pamphlet you made the investigation which has been concededly made up to date, and you hold within your office or in the office of the Mayor of this city that information. It has not been transmitted to the Board of Aldermen as the Charter requires; it has not been, so far as I know, made public in any manner or shape or form, nothing has been done with it except to make it the secret basis, the concealed basis of an investigation by which you propose to start by calling the President of the Borough to the stand and compelling him to answer the mass of stuff which you have been accumulating for four months, plus the mass of stuff which is contained in this book, but which doubtless is all upon a charge which you undertake to entertain as a trial court made by an outside organization against the President of the Borough of this city.

So I say that if the real analysis of this situation is resorted to it does disclose the fact, and I say this in all respect to the Commission, that you are making an effort to try the President of the Borough and upon these charges here, which have not been formulated by you nor by any responsible authority in this City, and which, if they are sufficient—if the evidence upon which the charges are based is sufficient, coupled with the evidence which you have and which you will not lay upon this table, nor which you will not disclose to The City of New York through its press, nor which you will not serve upon the President of the Borough—if this, coupled with what you have here is sufficient, you now reveal the next chapter of this proceeding, to wit, that you propose to

make this the basis of charges before the Governor of the State. Now, I submit, if anything could be outside the jurisdiction of a commission sitting as your Commission is, that would be outside of it.

Now, I call your attention to something else which I think is extremely pertinent, and that is this, the Corporation Counsel himself doubting the power of this Commission to conduct this investigation, and acting under advice or in consultation with his Honor the Mayor, last week appealed to the Legislature of this State for an investigation. I desire that that appeal—if I am not correct in reading it I know my friend will correct me—I desire that that appeal should be a part of the record which I am trying to make here (reading):

“MY DEAR MR. BUTTS—As you have probably observed, there has been considerable comment in connection with the pending investigation of the Department of the President of the Borough of Manhattan as to whether the powers of the Commissioners of Accounts are sufficiently broad to enable a searching and complete investigation to be made. Just what the Commissioners of Accounts are authorized and empowered to do is not without some doubt, and it may be that when the test comes their powers to enforce obedience to their subpoenas and compel the fullest introduction of testimony may be found to be insufficient. Certain it is that their authority in the premises is being vigorously questioned, and it is claimed that we will be barred by legal proceedings from making the full and fair investigation that I understand His Honor the Mayor desires to have made of the office of the Borough President and other Departments of the City Government.

“Before this difficulty could be solved by judicial decision—if the powers of the Commissioners of

Accounts are, as I rather expect they will be, questioned—the Legislature will have adjourned. I therefore request that you ascertain, if possible, from the Governor and from leaders of the Legislature, whether in their opinions, an investigating committee with full powers can be secured at this session, through whom a thorough investigation of all City Departments may be had. I would much appreciate your obtaining this information before your return on Friday, if you can do so.

“If I understand the Mayor correctly, it is his desire that all the Departments be carefully examined, but he has some doubts as to whether the powers of the Commissioners of Accounts are sufficient for the purpose. This has been a matter under consideration for some time and it now becomes acute because of the alleged limitations to the powers of the Commissioners of Accounts by those who claim to speak for the Department now under investigation.”

That is as far as I had a copy of the letter. If there was anything else in it which I did not have, I certainly would cheerfully have it added.

Mr. ELLISON—I think that is all of the letter.

Mr. LITTLETON—Now, Messrs. Commissioners, the attitude of this investigation is then this, adding one other chapter to it, you have begun the investigation of vague charges made by the City Betterment Club, you have obtained probably a score of reports from all of the Departments, for four months you have had the books of the Department; they are public records, not only at your disposal but in your possession and in the hands of special counsel retained by the City, and I think a large part of them are there now, and I should say if I had come into the case earlier they would not have been there at all. Now you have done that. Then you have announced a public hearing upon these charges which are contained

in this book, and upon it you have conducted the investigation, and I have appealed to you to frame the charges, if there be any, and the disclaimer is made that there are any charges now. Then I appeal to you to disclose the information which you have; let my client have it that he may see what you propose to do, and I am answered as to that with your statement that this is to be substantially the basis of a charge to be made before the Governor of this State against my client. Then following in that in the succession of what I might call the completed disorder, in my judgment, comes this appeal made by the Mayor and the Corporation Counsel to the Legislature asking them to appoint a Legislative Investigating Committee and saying in substance that there is some doubt as to whether you have the authority to continue this investigation.

Now, that application is pending before the Legislature to-day. They have asked for it and there is no reason to doubt from previous history and from tradition on this subject that the Legislature will ever deny even an appeal made by an adverse City Government in politics, that they will ever deny the right to have the City Departments of New York investigated. There is no reason to doubt but what the conference, heralded through the newspapers, will take place between my friends on the other side and his Honor the Governor and will result in the appointing of an investigating committee with the amplest powers, to search everything and call everybody about whom the Mayor says there is any question. There will be no doubt about the powers of this committee.

Therefore I submit, if the Commission please, if this is to be the procedure, if this application is to be sincerely made, this Commission ought not to proceed with this investigation until this application has been either granted or denied, and I may say this in order to relieve these gentlemen upon the other side or anybody else who



entertains any feeling about it, that I will join on behalf of my client with His Honor the Mayor in a common application to the Legislature of the State. I will join with them, if they will permit me, in the conference to-day with His Honor the Governor in an absolutely impartial application that this investigation for which they have appealed be granted, where we can go before a body and will then have the evidence which is now denied us brought in in some fashion or form under the regulation of the law. And I submit if they make that application, let us all make the application, and at least upon that point there shall be no friction or dispute. We join the gentlemen in their request to the Legislature of this State, we will welcome the investigation, we are anxious that the investigation may be made, but I submit that I need not say here that my client does not wish to submit to an investigation at your hands when there is back of you an arsenal of information that for some reason you will not produce, which you propose to hurl at him broadcast when upon the witness stand with the declared purpose of presenting him before the Governor of the State for removal.

My client, in addition to that, does not wish to submit to an examination before this Commission when he knows and this Commission knows and everybody connected with it knows that down deep at the basis of the charges there is a hostile and bitter and splenetic feeling that is pressing the Commission into an examination of the second highest elective officer of The City of New York.

I therefore say, Messrs. Commissioners, that my client does not wish to tamely submit to a programme which has been organized for the purpose of presenting him to the Governor of the State and which is proceeding upon the fact that he has been charged by the Betterment Club under some vague charges, which you refuse to formulate, the information of which you refuse to pro-

duce, and to call him upon the witness stand under such auspices or circumstances as those. I therefore say that you have no right to entertain these charges, I therefore say you should postpone the investigation or dismiss the investigation, and let us join with the gentlemen in an application to the Legislature of the State for a common investigation.

MR. ELLISON—Messrs. Commissioners, this investigation is not nor has it ever been brought about as the basis upon which charges will be made or would be made to the Governor. If this investigation should reveal facts, which I say without hesitation I hope it will not, that would warrant charges being preferred before the Governor against even the second highest elective officer of The City of New York. It will be the duty of the Mayor, if he acts under my advice, to prefer those charges, but all of that rests upon the fact as to whether or not the President of the Borough has properly performed the duties of his office, and whether he has or not will be revealed I think by this examination. This examination does not rest upon any charges made by the City Betterment Society. It may be that lines have been taken by the Commissioners of Account that led substantially to the same results or similar results as are claimed by the City Betterment Association, and if that be so, then the sooner that great office be investigated the better for all of us and the better, I think, for the one who governs—the head of it. The fact remains that in an investigation which now apparently appeals with great vigor to the President of the Borough he will be met with precisely the same conditions that he is now met with here, he will not be furnished with charges, he will not be furnished with evidence, he will not even be accorded the courtesy that I accorded him of having notice given him of the general subjects upon which he would be investigated. The position of the Borough President is as safe in your hands, and his honor is as safe, you who have known him

all these years, as it would be in the hands of an investigating committee sent from Albany, and I ask under all these circumstances that we be permitted to proceed with the investigation.

Mr. LITTLETON—I have before you the two motions made; one on account of the insufficiency of the notice and one on account of the general application pending, that this investigation be adjourned for one week until the conference between the Corporation Counsel and the Governor can be completed.

Commissioner HERTLE—You better proceed, Mr. Littleton. I think there has been enough evidence presented and we have been presented with enough matter.

Mr. LITTLETON—Messrs. Commissioners, having the purpose of this investigation in my mind so clearly labelled, you having had an opportunity for the last four months to step upstairs and conduct your investigation of the President of the Borough and you will probably have that opportunity until the complete end of his term, as the law requires, I shall stand then upon my legal rights and shall decline to accept on his behalf the mere informal notice which has been served upon him to appear here.

Mr. ELLISON—This position, of course, has been foreshadowed and we are not unprepared to meet it, but it does force a postponement, for which I now apply, in order that proper steps may be taken through the courts, if necessary, or that we may lay the foundation, which we have apparently not yet laid, that will warrant us in making an application that will test the powers of the Commissioners of Accounts and will decide whether the provisions of the Charter mean what they say or not. So to enable us to make that application and take the necessary steps, I shall ask the Commissioners to grant us a postponement of a week or more. In the meantime, how-

ever, I am going to ask you to set this hearing down for Thursday morning at 10.30, on which occasion we will proceed with our affirmative proof and not wait for the delay that will necessarily be incident to an application such as I have in mind. I will make my application that so far as the continuation—so far as the testimony of Mr. Ahearn is concerned for two weeks, and then I will ask that you set this hearing down for Thursday morning at 10.30 o'clock when we will proceed with our affirmative proof.

Commissioner HERTLE—Application granted.

Mr. ELLISON—I now will offer these letters, which are preliminary to this examination. I think the better way will be to spread them on the minutes.

The letters were admitted in evidence and are as follows:

John F. Ahearn,  
President.

Bernard Downing,  
Secretary.

CITY OF NEW YORK.

OFFICE OF

THE PRESIDENT OF THE BOROUGH OF MANHATTAN,  
CITY HALL.

November 23rd, 1906.

HON. GEORGE B. McCLELLAN,  
Mayor, City of New York:

SIR—My attention has been drawn to a pamphlet prepared under the direction of the Citizens' Union in which my administration of the affairs of the Borough of Manhattan, particularly the matter of expenditure of money, has been severely criticised, and in view of the wide publicity which this document seems to have received I beg to request that you will at once cause an investigation of

the affairs of this office to be made by your Commissioners of Accounts.

Yours very truly,

(Signed) JOHN F. AHEARN,  
President, Borough of Manhattan.

CITY OF NEW YORK, }  
OFFICE OF THE MAYOR, }  
Dec. 3, 1906. }

*To the Commissioners of Accounts,*  
City of New York:

GENTLEMEN—In pursuance of a request therefor, by Hon. John F. Ahearn, President of the Borough of Manhattan, I direct you to forthwith make a careful and exhaustive examination of the affairs of his Department, and report the same to me as soon as concluded.

For the purpose of facilitating this work, I have directed the Counsel to the Corporation to furnish you with all necessary aid and advice.

Very truly yours,

(Signed) GEORGE B. McCLELLAN,  
Mayor.

Mullan, Cobb & Mitchel,  
76 William Street,  
New York.

George V. Mullan,  
W. Bruce Cobb,  
John Purroy Mitchel.

April 9th, 1907.

Hon. MARTIN W. LITTLETON,  
60 Wall Street,  
New York City:

DEAR SIR—Pursuant to the promise of Hon. William B. Ellison, the Corporation Counsel, made in answer to your verbal request preferred yesterday morning at the



opening of the hearings in connection with the special examination of the accounts and methods of the office of the President of the Borough of Manhattan, I beg to advise you that the examination of Mr. Ahearn will open with a general inquiry into the organization and methods of administration of his office. Following this, we will take up the Bureau of Highways.

Yours respectfully,

(Signed) JOHN PURROY MITCHEL,  
Special Counsel.

(Examination of Borough President Ahearn adjourned to April 29, 1907, at 10.30 A. M.)

Adjourned to Thursday, April 18, 1907, at 10.30 A.M.

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CITY HALL—BOROUGH OF MANHATTAN,]  
NEW YORK, April 18, 1907.]

Met pursuant to adjournment.

Present—Hon. JOHN C. HERTLE and GEORGE C. VON SKAL, Commissioners of Accounts; and Mr. MITCHEL, Mr. BRUERE and Mr. LITTLETON.

Mr. MITCHEL—If the Commission please, when we met here last Monday we were confronted with the statement by counsel that this Commission had no jurisdiction in this matter over the Borough President, and that in any case he refused to attend and answer questions in the matters that you proposed to examine him concerning. You accordingly took an adjournment for two weeks in the case of the Borough President personally, and as to the rest of this examination you adjourned until this morning. The Commission therefore faces this situation to-day. This examination was brought on at the request of the President of the Borough himself, referred to the

Mayor. The President of the Borough having been invited to attend you here has declined the invitation, for reasons which are perhaps best known to himself. Pending the test that you may choose to make of your power to compel attendance in the premises, we will proceed with the examination of other witnesses. We have subpoenaed for this morning several witnesses whom I will ask you to call upon to come to the stand.

Commissioner HERTLE (reading names from subpoenas)—George F. Seannell, George R. Olney—

Mr. MITCHEL—Will you note the time, Mr. Commissioner?

Commissioner HERTLE (continuing)—Henry H. Lloyd, Edward B. Goodsell, Edward J. Deegan, Bernard H. Kingle, John F. Ahearn—

Mr. MITCHEL—No, not for this morning, that is for the 29th.

Commissioner HERTLE (continuing)—Robert B. Davis Jr., John D. Fisker, Simon Rosenfeld, Henry Solomon, Mathew J. Malohan, William H. Walker, Dennis M. Sullivan.

Mr. MITCHEL—Are any of those gentlemen present?

Mr. LITTLETON—Mr. Commissioner, yesterday I received informal notice to the effect that on this hearing to-day, on account perhaps of the attitude of the President of the Borough and his counsel, I would not be permitted to participate in the examination of the witnesses. The counsel very courteously told me what his view of it was, but I want to state to the Commission, first, that I believe it is by precedent of the Commission customary to permit counsel to participate in a public examination. I believe that your Honors, the Commissioners, will recall that throughout your history and in the history of your predecessors, wherever there has been a public ex-

amination it has been the practice of your commission to permit counsel properly behaving themselves to appear before you and to elicit whatever facts may be necessary. That is not only true of your Commission, but it is true of all commissions in this country. It has been settled in reference to almost all of the commissions that I am acquainted with—the Interstate Commerce Commission, the Railroad Commission of the State, and the various commissioners holding official places in the City.

Since the portent of this proceeding is understood, that is, that it may result in charges against the President of the Borough, your Honors can see how necessarily careful he would want to be about the conduct of this examination and the production of the evidence. It is a grave matter to charge a high elective officer with anything that would deprive him of his office, not that his office is so valuable to him, but because of the ensuing disaster to his character. That being so, it seemed to me at the outset it was rather out of order in the prosecution of this case to call as the first witness the President of the Borough. It likewise seems out of order in a proceeding of this sort, where there are accusations no doubt intended to be made, to call upon the defense, so to speak, to produce evidence and witnesses first. Notwithstanding that, and questioning the powers of this Commission, as I have continually done, and I do so now, your Honors have overruled the questions which I make to the jurisdiction of this Commission, and the question of testing it as to the Borough President—he was subpoenaed for the 29th, at which time a test, if it is to be made, that can then be made. Your Honors will recall on the first day of the hearing I asked for a notice—if there were to be charges I wanted the charges, and if there were no charges I asked for the notice of the scope of this examination. Counsel furnished me with a short notice, which, in my judgment, did not help me any, and on the second hearing I appealed to the Commission for additional notice.

That appeal was denied. My motion for that was overruled. Then in the interim the Board of Aldermen requested that these reports be made public, or, rather be spread upon their records, as the law requires.

Now, since that time I have been, on account of the action of the Board of Aldermen, I take it, or on account of the courtesy of the Commission, furnished with the reports, with the exception of three, which this Commission has made from time to time touching on the Bureaus of the various Departments. I recite all these facts first, before any proceeding is taken and in reference to these names that have been called before any action is taken, in order to know what my status is before the Commission, whether I am to be permitted to participate in the examination or whether I am to be permitted to sit in the room or whether I am to be excluded from the examination, as representing the Borough President. The intimation which I received yesterday was that I would not be permitted to participate.

Now, reciting these precedents and calling your attention to this history, I ask the Commission first if they will settle that question, whether I am to be permitted to appear and participate in the examination as in an ordinary court such examination would be conducted?

Mr. MITCHEL—If the Commission please, there is here no prosecution and no defense. This is an inquiry into facts. It is a purely ex-parte proceeding. It is entirely statutory and the witnesses called before you are not entitled in any way to representation by counsel. If you choose to extend the courtesy to any witness of permitting him to be represented before you by counsel, that is entirely a matter of grace. In this particular instance, the Borough President having had timely notice that he would be called before you, having had the additional courtesy of a notice as to the subject-matter upon which he was to be examined, although general, and having

after both of those notices declined to come before you and submit himself to your examination, I submit that he had forfeited that consideration at your hands which would lead you to extend to him this courtesy, which is by no means a right, and therefore, Messrs. Commissioners, I must urge upon you that these proceedings shall go on without the interruption of objections, as *ex-parte* proceedings, and without the representation by counsel of any of the witnesses who are about to be called before you. We will be glad to have the representative of the Borough President remain with us and listen to the proceedings, of course, but as far as taking part in the proceedings is concerned, that privilege I contend is forfeited by the failure to attend as a witness.

Mr. LITTLETON—Now, Messrs. Commissioners, before you have acted upon it, let me call your attention to the record, and perhaps the counsel will stand corrected. You served an informal notice upon the President of the Borough, in response to which he asked for information as to the charges or as to the investigation. When you declined to furnish that, as he deemed it was his right to have it, the record shows that I said on behalf of the President of the Borough that I declined to accept the informal notice which you had served as in anywise obligatory upon the President of the Borough to appear here. Of course, the necessary and proper method was to serve a subpoena upon the President of the Borough, if you chose to have him appear at all. The notice which you gave him was as if you wrote him a letter and told him there would be a hearing.

Now, following that notice, which was informal, and upon which I refused to have him appear at that time because the notice had not been served upon me as to the nature and scope of the proceedings, came a subpoena which calls upon him to appear on the 29th of this month. It was understood between counsel—indeed the Corporation Counsel himself publicly raised the question as to



your power to conduct this proceeding. It was understood between counsel and myself that the 29th should be fixed as the day on which he should be subpoenaed, between which time and now, if the contest is to be made, that contest could be made in due course.

Now, the attitude of the President of the Borough is that he does not stand in breach of any duty that he owes this Commission nor in disobedience to any process of this Commission. He refused to attend upon the informal letter which you sent him, upon which you had no right to expect he would attend, except he chose to come here of his own will. Then you served a subpoena upon him, which was for the 29th. That time has not arrived, he is not in disobedience of any process of this Commission, and if the counsel lays it upon that ground that he has forfeited his right to have counsel, I say the President of the Borough has disobeyed nothing in the way of the process of this Commission. That stands on the record undisputed.

Now, if your Honors please, in respect to one other thing, counsel whom I esteem highly and whom I would not animadvert upon for anything in the world, stands here to-day *sui juris*. He stands here representing nothing, so far as I can see. You have no right as triers of the facts to rule upon evidence and exclude it produced by a counsel here of your own selection. No Court in Christendom, no investigating body in the world ever brought its own counsel in if it was going to be the final arbiter of the facts or any particular issue or rule upon evidence. The counsel to-day stands absolutely without a precedent in the law or in the Charter of the City. You may investigate all you like, and if you ask me what I think scientifically your duty is in the matter, I would say you have the right to go to your office, take all your witnesses, or go up in the President of the Borough's office, go to any Bureau, administer an oath, ask any question, propound any interrogatory and conduct your

business as you have for the last year or so. But if you ask me the question what right has this counsel to appear, what right has he to be here to conduct an examination which is public, which is adverse, which is critical, which is hyper-critical, made of a great office in the City, I say you have no right to permit him to be present, unless in fairness you permit the counsel of the head of the particular Department you are going to investigate to be here and see that all the facts are elicited.

Now, if your Honors please, if you permit the Betterment Club through the instrumentality of its officers to make criticisms, if you accept the notice of His Honor, the Mayor, that you intend to investigate or that you are directed to investigate, if you do investigate, does this gentleman represent the Commissioners of Accounts? Does he represent the Mayor of the City? If he represents the Corporation Counsel, is not the Corporation Counsel the legal adviser of my client as well as the legal adviser of the Mayor of this City, is not his duty just as obligatory to take care of the interests of the President of the Borough as to take care of the interests of His Honor, the Mayor, if he looks at it in a fair fashion? Are you not compelled in fairness to permit him counsel, if this examination is not to be reduced to a farce, if it is not to take that course, which I hope it will not take, although I have predicted it would take, an examination which shows it may not altogether be directed from a pure sense of a consciousness that something wrong exists in the Department. If this examination is to be fair in the eyes of the public and press, fair in the eyes of any ordinary man who knows what it is to be put upon charges, even if those charges are not put in writing, fair as you understand fairness, Anglo-Saxon, American fairness, if you please, open, if you please, if it is to be that way, I submit that if the unseen and unknown forces which are pressing this prosecution are to have counsel, then the seen and the known forces which

are defending against this prosecution should be entitled in fairness to counsel. Now I submit—I say this without any reflection of bitterness upon a living man, I have absolutely no feeling about this thing at all, but it is my solemn judgment that my friend upon the other side and this Commission both will make a mistake if you exclude from consideration, without a forfeiture having taken place, any right of the President of the Borough, without his standing in disobedience of any writ or process of this Commission, I submit it will be a grave error on behalf of the fair, a worse error on behalf of the propriety and the dignity of this Commission, and will not do as much damage to the man whose character is being pulled to pieces, whose record is being assailed, whose official character or official course is being attacked, it will not do as much damage to him as it will in its reactionary influence upon the purpose and the bonafides, upon the sincerity of this investigation itself.

I therefore state to the Court sitting as a Commission, or the Commissioners sitting as a Court, when the counsel says the President of the Borough had forfeited any right to appear here, that he stands absolutely as clean before this Commission as any one else, he stands in disobedience of no process of this Commission: He refused to appear because you would not give him the proper notice, he refused to accept an informal notice to appear, and then they served a subpoena on him, which is returnable on the 29th, and you may not say until the 29th whether he will or will not appear. I say to this Commission, so far as I am concerned, if the counsel wishes to proceed with this examination now, now that I have by a cork-screw procured the information which, I think, should have been given me on the first or second day of this hearing, now that I have the record of the Commissioners of Accounts, which I think I was entitled to, now that they are here, if the counsel wishes to go into an examination of all these questions from the beginning to

the end and wishes these gentlemen whose names he has called to appear and answer before the Commission, and will permit me to have the additional records, to which I am entitled, which were made through Scudder & Maclay, who ought not have been employed and paid with the City funds, if they will give me those I will throw wide open the door and I will ask them to go to the very bottom of every Department of the Borough Government and stay here until the crack of doom. All I demand is that my client be tried like an ordinary white man twenty-one years old, in an American Government, that is all.

Mr. MITCHEL—Messrs. Commissioners, again and for the last time I desire to point out there are no charges here, that there is no prosecution, and that the Borough President was given the opportunity to come here and to answer your questions concerning the facts on which you wished additional light, and that he refused to grasp that opportunity. Representation here was a matter not of right, and therefore he has forfeited no right, but it was a matter of privilege and by refusing to accept your courteous invitation to come here and answer, he has forfeited that privilege and therefore I ask a ruling.

Commissioner HERTLE—We will have to deny the application to be represented.

Mr. MITCHEL—I ask you to call to the stand as the first witness Mr. DeBerard.

Mr. LITTLETON—Before you call the witness I think I ought to say the President of the Borough is under subpoena signed by this Commission. You have denied his application for counsel to appear and represent him. I suppose that you will recall the subpoena, unless you accord him on that day the right to be represented by counsel.

Mr. MITCHEL—I think, Messrs. Commissioners, that is a matter for you to rule on on that day.

Mr. LITTLETON—Of course it can be ruled on on that day, but then I think it would be fair to say whether or not you are going to exclude his counsel. There seems to be some doubt about it. You subpoenaed him for the 29th. He has not been subpoenaed ever before this Commission. He was simply notified. If the notice was simply for the purpose of raising the question, and then when he subsequently got the reports upon which he was willing to reply and was willing to appear, if then counsel got alarmed and did not want him to appear, then I can understand their attitude.

Mr. MITCHEL—You cannot rule upon the question until it is presented to you, you cannot rule in advance. If the Borough President obeys your subpoena and appears here on the 29th and submits himself to your jurisdiction, it will be time for you to rule upon this question, if it is then presented to you.

Mr. LITTLETON—I have offered to produce all the subordinates, if your Honors do not deny me the right to represent the Government here. I am perfectly willing to send to every one of his subordinates to come down here, if you do not deny me the right.

Commissioner HERTLE—We have already ruled on that.

FREDERICK B. DE BERARD, called as a witness, being duly sworn, testified as follows:

*Examination* by Mr. MITCHEL:

Q. What is your full name?

A. Frederick B. DeBerard.

Q. What is your business, Mr. DeBerard?

A. I am statistician of the Merchants' Association of New York.

*Q.* Did the Association that you refer to have occasion in 1904, to make an examination into the condition of the pavements of this Borough?

*A.* It did and made a partial examination at that time.

*Q.* What state of facts, if any, brought on that examination?

*A.* The receipt of a good many complaints from members of specific defects in the street, complaining that openings had been made and holes due to traffic existed and that they had in many cases made complaint of the continuance of those conditions without having obtained a remedy; and they sought the offices of the Merchants' Association to present the matter to the proper authorities in the hope of getting final action taken to remedy the conditions.

*Q.* Were these members of the association, or the public at large?

*A.* Both. We had a large number of complaints covering both members and the general public.

*Q.* Now, Mr. DeBerard, will you please tell the Commission what action the Merchants' Association took to ascertain the condition of the pavements at that time and subsequently?

*A.* In the latter part of August, 1904, a partial inspection of a number of the streets was made. The inspection party proceeded up the west side of the Island as far as 135th street and took excursions into a number of the cross streets, then it proceeded across the Island to the East Side and came down First avenue and went through a number of the streets on the East Side.

*Q.* Did that inspection party take notes at that time?

*A.* It did take some notes, but there was no purpose of making a minute examination, it was simply to observe the general conditions, whether or not the conditions complained of by our members existed throughout large parts of the City or whether they were local and possibly due to special and local conditions.



*Q.* What were the conditions that came to the notice of that inspection party—were you a member of that party?

*A.* I was.

*Q.* What were the conditions that came to the notice of the party?

*A.* The general condition was bad in many of the streets. In other streets the condition was fairly good, but wherever we went we found more or less holes and in some sections we found the holes extremely numerous.

By Commissioner HERTLE:

*Q.* When was this?

*A.* That was in August, 1904.

By Mr. MITCHEL:

*Q.* What action, if any, did the Association take on the basis of that examination?

*A.* The Association, through its Committee on City Conditions, addressed a letter to the Borough President, bringing the general conditions observed on that inspection tour to his notice and calling his attention to the provisions of law which placed the subject-matter under his control and to other provisions of law which gave him ample power to keep the pavements in proper condition.

*Q.* Did the Association receive a reply from the Borough President to that communication?

*A.* It did; it received an acknowledgment stating that he would take the matter up and do everything possible to put the streets in proper repair.

*Q.* What next step did the Association take?

*A.* The next step was in April of 1905. A very casual observation of the streets and various parts of the City showed at that time that they were in a very bad condition, which seemed to be general. I was instructed by the City Conditions Committee to make a thorough in-

spection. I organized two inspection parties and we were out ten days all day long. We went over all the asphalt pavement and much of the block pavement, south of 125th street, and portions of the streets north of 125th street. At that time we noted only the obvious and important defects. At the outset we had undertaken to apply the conditions prescribed by the maintenance contracts, namely, a certain depression below the center of a four-foot straight edge, but we found if we undertook to apply that test we could not make more than a mile a day, because we could hardly find any part of the pavement which did not have such minor depressions, consequently, we only noted the important obvious defects, where the pavement was actually broken or sunken to such a degree as to make a material obstacle, and at that time we recorded somewhat over 2,000 holes that needed attention.

By Commissioner HERTLE:

*Q.* This was in 1905?

*A.* That was in April, 1905.

By Mr. MITCHEL:

*Q.* What next step did the Association take?

*A.* Following that I prepared a formal report—no, I will say that after making that inspection we informed the Borough President of the action we had taken.

*Q.* Personally or by letter?

*A.* Personally, and said to him that our purpose was not to make a public stir, but to examine into the methods with a view to learning whether or not a general betterment of the conditions could not be obtained, and that we should like his co-operation in that and his promise to make inquiry in the Department as to the methods in use. Mr. Ahearn granted that permission, and accordingly I made inquiry of a number of the employees and officials in the Bureau of Highways and Department of

Public Works. Subsequently I drafted a report, including the observations made on the inspection trip and the conditions that I had either personally observed or had learned by information as the result of inquiry in the Bureau of Highways as to the methods, and that information and the deductions and conclusions were embodied in a report which I submitted to the Committee on City Conditions. Immediately thereafter a copy of the report was transmitted with a letter to Borough President Ahearn and he acknowledged its receipt, and thanked us for the work that we had done in the matter, and promised his earnest co-operation in the effort to better the conditions.

Q. Can you say when that report was submitted to the Borough President?

A. I have the letter. June 5, 1905.

Q. (Handing paper.) Is this the letter?

A. The letter and the Borough President's reply.

Q. This is the reply received from the Borough President?

A. Yes.

MR. MITCHEL—I offer these papers in evidence.

The papers were admitted in evidence and marked "Exhibits Nos. 1 and 2, respectively, April 18, 1907, C. B."

Mr. Mitchel read Exhibit No. 1, as follows:

June 5, 1905.

HON. JOHN F. AHEARN,

President Borough of Manhattan,  
City Hall, City:

DEAR SIR—I take pleasure in transmitting herewith copy of report made to this Association upon the condition of the asphalt pavements in this Borough. I ask your careful consideration of the same, especially the recommendations with which the re-

port concludes. I shall be pleased to have you name an hour when it will be convenient for you to meet me to discuss the report and recommendations with a view to co-operating as therein suggested.

Very truly yours,

Chairman, Committee on City Conditions.

(Mr. Mitchel read Exhibit No. 2 as follows):

CITY OF NEW YORK,  
OFFICE OF  
THE PRESIDENT OF THE BOROUGH OF MANHATTAN,  
CITY HALL,

June 6, 1905.

JOHN C. EAMES, Esq.,  
Chairman, Committee on City Conditions,  
Merchants' Association,  
346 Broadway, City:

MY DEAR SIR—I have the honor to acknowledge the receipt of your favor of the 5th instant, enclosing report made to your Association upon the condition of the pavements in this Borough, and beg to say in reply that the matter will receive my very best attention and consideration. Unnecessary to say, I shall be most happy to co-operate with your Association in any effort that may be made for the betterment of the pavements of this city.

Within a few days I shall communicate with you and arrange for a meeting for the purpose of discussing the recommendations contained in the report.

Very truly,

JOHN F. AHEARN, President.

Q. What followed the receipt of that letter, Mr. DeBerard?

A. I had various consultations with the engineers of

the Department of Public Works, with Mr. Scannell, the Superintendent of the Bureau of Highways, and with the officials in the offices of the Borough Presidents of Richmond and of Brooklyn, with a view to further testing the efficiency of the methods employed in the Borough of Manhattan for maintaining the pavements; I also had various consultations with the officials of the Department of Water Supply, the Chief Engineer, Mr. de Verona, Commissioner Ellison, and one or two others whom I do not now recall, in order to learn the reasons for the lack of co-ordination between the Department of Water Supply and the Bureau of Highways whereby there were frequent disputes as to the responsibility for replacing defective pavements, the pavements in such cases remaining unrepaired for long periods of time, several such instances having come to our particular notice. On July 6th another letter was received from the Borough President upon the same subject.

Mr. MITCHEL—I offer this in evidence.

The letter was admitted in evidence and marked "Exhibit No. 3, April 18, 1907, C. B."

(Mr. Mitchell read Exhibit No. 3, as follows:)

CITY OF NEW YORK,  
OFFICE OF  
THE PRESIDENT OF THE BOROUGH OF MANHATTAN,  
CITY HALL,

July 6, 1905.

JOHN C. EAMES, Esq.,  
Chairman, Committee on City Conditions,  
The Merchants' Assn of New York,  
No. 346 Broadway, City:

DEAR SIR—In reference to your recent letter transmitting a report from the Merchants' Association on the condition of the City's asphalt pave-

ments, President Ahern directs me to inform you that the recommendations contained in your report are now being considered by the Engineers of this department in conjunction with the Engineers of the Department of Water Supply, Gas and Electricity. As soon as their report has been submitted to the President he will be pleased to confer with you respecting the same.

Yours respectfully,

E. DOWNING, Secretary.

*Q.* What followed the receipt of this letter?

*A.* I wish to go back a little and state that prior to the sending to President Ahern the report to which I have alluded, I had several consultations with him, at one of which he sent for Chief Engineer Olney, and said to him, in effect, I could not quote his exact language, he said to him in effect that he was tired of the complaints as to the conditions of the pavements, that he was being hounded all the time, the Merchants' Association had sent to him a great many complaints, and that he wanted Mr. Olney to get busy and get the pavements into proper condition.

By Commissioner HERTLE:

*Q.* The Borough President said this?

*A.* The Borough President so said to the Chief engineer, that he did not want to hear any more kicks about disputes as to jurisdiction, that the chief engineer was to fix up every hole of every kind that he could find that was in condition to be repaired, and let the questions of jurisdiction come up for the Corporation Counsel to settle afterwards, and the question of disputes as to cost would likewise be settled by the Comptroller's Department. After these letters were sent, I visited the Department, the Bureau of Highways, at frequent intervals, to discuss the policy of the recommendations, and I was



referred by the chief engineer, Mr. Olney, to Mr. Wilnot Martin, assistant engineer in charge of maintenance of highways, and Mr. Martin at a later date informed me that a number of the recommendations made by the Merchants' Association had been put into effect.

*Q.* What were those recommendations?

*A.* The most essential recommendation related to inspection. Mr. Martin, in response to my questions, admitted that there was no systematic inspection by the Bureau of Highways of the conditions of the streets as related to repairs under maintenance contracts, that the number of inspectors was insufficient, that many of them were incompetent, that the engineers had very little control over them, that the inspectors that had been assigned to him were frequently taken off and put upon construction work without notice to him, so that he had very little proper machinery for informing himself of the condition of the streets and consequently was unable to take the initiative necessary to the repair of the streets. My suggestion to him was that he divide the City into districts of moderate size, put an inspector in charge of each district, require him to patrol the streets every day, to make reports at least once a week upon cards, of existing defects, and finally to certify that the defects reported and recorded on those cards constituted all the defects that existed in the pavements in that particular inspection district.

*Q.* That was your suggestion?

*A.* That was my suggestion, the purpose of the latter recommendation being that it would serve as a check upon incompetent and unfaithful inspectors and furnish a basis for their dismissal in case of incompetency by proof furnished by their own records.

*Q.* What action, if any, was taken on that recommendation?

*A.* A system of cards put into effect. Whether or not the City was districted in the manner suggested, I

do not know, though Mr. Martin afterwards told me that while he had been able to make a great improvement, he was not able to do the work as effectively as he wanted to, because of the constant interference with the inspectors that should have been under his charge.

*Q.* Have you any knowledge whether that card system is still continued?

*A.* They have a card system still in force there; I am not aware of the scope of it or whether it is the same system Mr. Martin installed or not.

*Q.* You have not made an examination as to that recently?

*A.* Not recently.

*Q.* What next step was taken?

*A.* The complaints as to the condition of pavements became quite numerous again in the spring of 1906. I was aware that during the winter no repairs are made to the asphalt pavements or only under exceptional cases; also that in the spring the Companies having maintenance contracts are supposed to get busy. In their practice they actually undertake to make general repairs about twice a year, and in order to give full opportunity for the streets to be put in the proper condition under the disrepair incident to the winter, I made no inspection immediately in the spring, but allowed ample time for the streets to be properly restored, and therefore undertook another examination in July.

By Commissioner HERTLE:

*Q.* What year?

*A.* July of 1906.

By Mr. MITCHEL:

*Q.* Was this the third examination that had been made of the streets?

*A.* This was the third examination, and the second general and thorough examination.

*Q.* The third examination taken altogether, and the second thorough examination, is that it?

*A.* The second thorough examination. In this last examination I took a map of the City and put in colored inks all the asphalted streets.

*Q.* Every asphalted street in this Borough?

*A.* Every asphalted street in the Borough of Manhattan, without exception, and made a record of the defects that existed, block by block.

*Q.* Did you cover every asphalt street in your inspection?

*A.* Covered every asphalted street in the Borough of Manhattan.

*Q.* Where did you begin?

*A.* Began, I think, at the Battery, it might have been on the east side, but in the downtown section and went up.

*Q.* Worked up town?

*A.* Yes.

*Q.* Did you take a record of what you found on that inspection?

*A.* I took a record on large cards.

*Q.* What kind of a record was that?

*A.* It was a round symbol for a wear hole and a square to indicate a cut.

*Q.* Did you mark all the defects in the pavements which you found in the inspection?

*A.* Marked all where it was possible to do so. In some cases the street was in such a ruinous condition that it was practically a stone quarry from one end to the other; Eighth avenue is an example. I made no attempt to record the individual defects in Eighth avenue, for the reason that they were almost continuous, and I simply summarized the whole thing by stating the thing was in a ruinous condition from the lower end up to Fifty-ninth street.

*Q.* This examination was made in July, 1906?

A. July, 1906.

Q. What action was taken after the making of that investigation?

A. A general oversight of the condition of the streets was kept. In September a letter was written to Mayor McClellan in relation to the general subject matter. The reason for the Mayor being informed was that we had learned that there were conflicts of jurisdiction, and that whereas the Borough President ostensibly has sole local jurisdiction over the street pavements, in fact jurisdiction is exercised or claimed to some extent by other co-ordinate departments, and that friction had arisen between them, and that before the streets could be properly maintained it was necessary to solve those problems of jurisdiction, so that the responsibility could be actually concentrated upon one official.

Q. Mr. DeBerard, recalling your testimony given a little earlier, did you not say that after the inspection of 1905, after you had drawn that to the attention of the Borough President, he instructed his subordinates to make repairs of all pavements, no matter whether the defects were due to one cause or the other?

A. He did.

Q. Without regard to the cause of those defects?

A. Yes, sir.

Q. You may go on.

A. A letter was sent to the Mayor suggesting that he appoint an official commission to investigate the whole subject, particularly with a view to removing the conflicts of jurisdiction, in order that the numerous excuses which had been made to us for failure to repair the pavements should not recur. I have the impression that that letter did not come to the Mayor's personal knowledge, because at a later date, in a personal interview between members of our Committee and the Mayor, he expressed surprise when a copy of the letter was shown to him; and also we received a letter from the Borough President's

office undertaking to explain the conditions, and that letter purported to be in reply to our previous letter addressed to the Mayor, which had been referred to the Borough President's office.

*Q.* Have you that letter?

*A.* There is the letter of September 17th and its acknowledgment.

Mr. MITCHEL—I offer these in evidence.

The letters were admitted in evidence and marked “Exhibits Nos. 4 and 5, respectively, April 18th, 1907, C. B.”

(Mr. Mitchel read Exhibit No. 4, as follows):

NEW YORK, September 17, 1906.

Hon. GEORGE B. McCLELLAN, Mayor,  
City Hall, City:

DEAR SIR—The proper maintenance of the pavements in this City has for some time past been the subject of careful consideration by this Association. A thorough inspection of all the asphalt pavements in the Borough of Manhattan has been twice made, and the location and nature of the defects recorded. If desired, these records are at the disposal of the City authorities.

It is a fact too obvious to admit of dispute that the defects are extremely numerous, and the disrepair of our street pavements is so general and persistent as to cast discredit upon the City, to impose a heavy burden of damage and inconvenience upon the business community, and to entail great discomfort upon all citizens. Municipal and private undertakings make imperative many temporary openings in the pavements, which should be repaved without delay. In practice, these openings are seldom re-paved as soon as they might and should be.

On the contrary, work upon them is generally dilatory, and after the excavations have been refilled the breaks in the pavements frequently persist for months. The number of such breaks whose duration is continued for an excessive time, is at all times many hundreds. Prompt repair would reduce this maximum to a relatively small number.

Great numbers of defects are due to the wear of traffic. These are seldom promptly repaired, although the City pays for the constant maintenance in a serviceable condition of its pavements.

The cause of these conditions, stated broadly, are:

- 1: Conflicting jurisdiction.
- 2: Divided responsibility.
- 3: Defective methods.
- 4: Lack of effective control over contractors.

We are aware that the immediate control of street pavements is within the jurisdiction of the Borough Presidents. Nevertheless, the subject is one that is intimately related to other branches of the City government. Moreover, some of the Public Service corporations in this City have franchise rights which they claim ante-date and are superior to the jurisdiction of the Borough Presidents. The Water Department claims and actually exercises jurisdiction to a considerable extent, and its operations are responsible in a large degree for some of the conditions cited. The effective operation of the Department of Street Cleaning is in large measure dependent upon the condition of the pavements, and the operation of the Fire Department is badly hampered and rendered dangerous by the failure to maintain the pavements in proper condition.



Inasmuch, therefore, as the rights and powers of several City Departments, as well as those of the Borough Presidents, are concerned, we address you as the official head of the City, with a view to action looking toward an improvement of the existing conditions. We do this after an examination of existing methods, and have reason to believe that the step which we propose will have the approval and co-operation of the several co-ordinate branches of the City government which are concerned with the matter.

We respectfully submit for your consideration the appointment by you of a Commission charged with the duty of examining into the methods now in operation in the City for the maintenance of pavements; of making a study of the methods in use in cities in America and Europe where the pavements are maintained at the highest degree of efficiency; and of reporting upon such methods with recommendations looking toward better administration of this most important branch of the public work.

We shall be pleased to have you name an hour when it will be convenient for you to meet members of this Committee, in order that we may present orally further suggestions as to the subject.

Very respectfully yours,

COMMITTEE ON CITY CONDITIONS,  
THE MERCHANTS' ASSOCIATION OF NEW YORK,  
By JOHN C. FAMES, Chairman.

(Mr. Mitchel read "Exhibit No. 5" as follows):

CITY OF NEW YORK,  
OFFICE OF THE MAYOR,

Sept. 20, 1906.

JAMES C. EAMES, Esq., Chairman,  
The Merchants Association,  
346 Broadway, City.

DEAR SIR—The Mayor directs me to acknowledge the receipt of your communication of the 17th inst., with reference to the subject of street pavements in this City, and to state that the same will have his careful consideration.

Yours very truly,

WILLIAM A. WILLIS,  
Executive Secretary.

THE WITNESS—And there is the letter from the Borough President in response to the letter addressed to the Mayor.

MR. MITCHEL—I offer it in evidence.

The letter was admitted in evidence and marked "Exhibit No. 6, April 18th, 1907, C. B."

(Mr. Mitchel read "Exhibit No. 6" as follows):

CITY OF NEW YORK,  
OFFICE OF  
THE PRESIDENT OF THE BOROUGH OF MANHATTAN,  
CITY HALL,

October 30, 1906.

MR. JOHN C. EAMES,  
Chairman, Committee on City Conditions,  
The Merchants' Association,  
No. 346 Bway, N. Y.:

DEAR SIR—I am directed by President Ahearn to forward herewith for your information copy of

report of the Chief Engineer of Highways, relative to matters mentioned in your communication of September 17th, 1906, addressed to His Honor, The Mayor, and forwarded to this office for attention.

Yours very truly,

BERNARD DOWNING,  
Secretary.

*Q.* After the receipt of that letter, what was the next step taken by the Merchants' Association?

*A.* Members of the Committee on City Conditions called on Mayor McClellan in October and made oral representations to him of the conditions that the Associations complained of and urged upon him the appointment of a commission, as suggested by their previous letter of September. The Mayor expressed surprise when shown a copy of the letter, but at once stated that he thought it a desirable thing to do, requested that the Committee send him another letter covering more explicitly some of the points discussed, and that he then would take under consideration the appointment of the Commission desired.

*Q.* That Commission has been appointed, has it not?

*A.* The Commission was appointed at a later date, and has been doing a good deal of work.

*Q.* It has made a partial report, has it not?

*A.* It has made a partial report.

*Q.* Are you a member of that Commission?

*A.* I am Secretary of the Commission.

*Q.* Will you state of whom that Commission is composed?

*A.* The members of the Commission appointed by the Mayor are John C. Eames, Nelson P. Lewis, Edward M. Bassett, Samuel Whinery and Walter C. Kerr.

*Q.* Coming back now, Mr. DeBerard, to the examination of the streets made in July, 1906, did you reckon the total number of openings found at that time?

A. I computed them from the separate slips that were made.

Q. Can you state approximately what that total was?

A. Somewhat over three thousand, but that did not include the streets like Eighth Avenue, whose general conditions was so bad that it was impracticable to record the separate defects.

Q. And exclusive of such streets as Eighth Avenue your inspection in July of 1906 disclosed 1,000 more holes approximately than your inspection of 1905?

A. Yes.

Q. During that inspection of 1906, did you take photographs of any of the defects found?

A. We took photographs in July, but they were unavailable for purposes of exhibits through a blunder on the part of the photographer, who cut up the films and destroyed the identifying numbers in printing.

Q. What was the next step to what you have already described?

A. In November——

Q. Of what year?

A. Of 1906, another inspection was made covering a very considerable portion of the same streets as were inspected in July, in order to observe whether there had been any material change either for the better or for the worse in the conditions of the streets and at that time a considerable number of photographs were taken and compared with the conditions as recorded, observed and recorded in July.

Q. In taking those photographs in November, were you able to identify by means of the cards made in July the individual holes?

A. In many instances. The places which we photographed in July were recorded, and I went to a very considerable number of those in order to observe whether or not the conditions still existed in November, and where they did exist I took photographs, the conditions being substantially similar to those that existed in July.

*Q.* Now, in making this examination in November, did you check the examination made in July?

*A.* Not entirely.

*Q.* How far?

*A.* I took enough streets to give a good selection, covering every section of the City, particularly the streets that showed worse condition in July, in order to observe whether they had been repaired or not, but did not make an attempt to go over every separate street in November as we had done in July.

*Q.* Then as I understand you, you made a complete record in July and checked that record as far as selected streets were concerned in November, is that correct?

*A.* That is correct.

*Q.* How did you record what you found in November?

*A.* On the diagrams indicating the original defects as recorded in July. The separate cards for each street were tabulated upon diagrams showing a considerable section of the City and the defects in each block as they existed in July as shown upon these diagrams. Then in going over this same territory in November the conditions were noted on the diagram itself.

*Q.* (Showing papers) Are these the records which you made in November?

*A.* These are part of them.

*Q.* What part?

*A.* Why, I do not know the exact proportion. The original records in complete form are in that bundle on the chair.

*Q.* We will go into that later. Did these cards represent selected streets?

*A.* The red and black notations on them represent the condition of every street as observed in July. The notations in green represent the observations of November as to those streets in which observations were made.

*Q.* Now will you take up those cards consecutively and tell us what the conditions were which you found in November with relation to the conditions recorded on those cards in July.

A. This card covers the area from Fourteenth street to Thirtieth and from Eleventh avenue to Fifth avenue.

Q. Now taking it up street by street, will you please tell the Commission what you found in November with relation to what had been found in July?

A. In November I went through Twentieth street between Seventh and Eighth avenues; there were ten holes in July and those holes in November had been repaired. Between Sixth and Seventh avenues there were eleven holes in July and twenty-seven holes in November.

By Commissioner HERTLE:

Q. What street is this?

A. That is Twentieth street. Twenty-first street——

Q. Mr. DeBerard, will you run through each street consecutively?

A. But I didn't go over all these streets in November.

Q. You simply took selected places?

A. I am merely going over now the streets that I traversed in November.

Q. Then continue, please.

A. On Twenty-first street, between Sixth and Seventh avenues, there were four wear holes, and three cuts in July. In November the four wear holes remained; the three cuts had been repaired.

On Twenty-third street, between Ninth and Tenth avenues, in July there were 23 wear holes; in November there were 31 wear holes.

On Twenty-fourth street, west of Eleventh avenue, in July there were 7 holes, which had been repaired in November; between Tenth and Eleventh avenues, there were 6 holes in July and 29 in November.

By Commissioner HERTLE:

Q. Is that asphalt?

A. This is all asphalt pavement. Between Ninth and Tenth avenues there were 2 holes in July and 24 in November; between Ninth and Tenth avenues there were



no holes in July and 11 in November; between Seventh and Eighth avenues there were 2 holes, 2 cuts and a generally uneven condition in July; 7 holes including cuts in November; between Sixth and Seventh avenues there were 3 holes and generally uneven condition in July and 8 holes in November. In addition, crossing Broadway to Fifth avenue, at the intersection of Twenty-fourth street, there were 15 holes in July and 4 in November.

Twenty-sixth street—Between Tenth and Eleventh avenues, 13 holes in July, 3 in November; between Ninth and Tenth avenues, 2 holes in July, 18 in November; between Eighth and Ninth avenue, 3 holes in July, 10 in November; between Seventh and Eighth avenue, 1 hole in July, 9 in November; between Sixth and Seventh avenues, 2 holes in July, 24 in November; between Broadway and Sixth avenue, 11 holes in July, repaired in November.

Twenty-seventh street—Between Ninth and Tenth avenues, 3 holes and 3 cuts in July, 3 holes in November; between Eighth and Ninth avenues, no holes in July, 2 in November; between Seventh and Eighth avenues, 12 holes in July, repaired in November; between Sixth and Seventh avenues, 3 cuts and 2 holes in July, repaired in November.

Twenty-eighth street—Between Ninth and Tenth avenues, 1 hole in July, 5 in November.

Twenty-ninth street—Between Ninth and Tenth avenues, 7 holes and a trench in July, 25 holes in November; between Eighth and Ninth avenues, 5 holes in July, 22 in November; between Broadway and Fifth avenue, 3 holes in July and 3 in November.

I made no observation of the north and south streets in that particular area at that time.

Q. Then these comparative cards cover only the cross streets and not the avenues, is that correct?

A. In some cases, and in other cases they cover both.

Q. Well, when they cover both will you please note it; I mean will you please state it.

Mr. LITTLETON—He does that by reading it.

Mr. MITCHEL—Mr. Commissioners, this record is necessarily a long and tedious record, but as these cards are impossible of interpretation by anyone except the person who made them it will be necessary to go through this long and tedious process in order to place upon the record the result of the examination made.

Mr. LITTLETON—If I am not entirely outlawed I would ask the counsel for permission to ask how large these holes are, because it might make some difference.

Mr. MITCHEL—I will make that my question, Mr. Littleton.

Q. I will ask you to state in running over this record the comparative size of these holes.

A. It is impossible to make any general statement that would answer that intelligently. The holes vary from the size of a hat to the size of a haystack; some of them run clear across the streets.

Mr. LITTLETON—What is the size of a haystack?

The WITNESS—That is about as big as a piece of chalk.

Mr. LITTLETON—Or about as long as a piece of rope.

Q. Continue, Mr. DeBerard.

A. This card covers the area between Eleventh avenue and Fifth avenue, Forty-fifth street and Fifty-ninth street.

Forty-fifth street—Between Tenth and Eleventh avenues, 2 holes in July and 2 in November; between Eighth and Ninth avenues, 1 cut in July, repaired in November; between Broadway and Eighth avenue, 2 cuts in July, repaired in November; between Sixth and Seventh avenues, no holes in July, 7 in November; between Fifth and Sixth avenues, no holes in July, 4 in November.

Forty-sixth street—Between Tenth and Eleventh avenues, 4 holes and 1 cut in July, 1 hole in November; between Ninth and Tenth avenues, 4 holes in July, repaired in November; between Eighth and Ninth avenues, 1 cut in July, repaired in November; between Broadway and Eighth avenue, 6 holes in July, 9 holes in November; between Sixth and Seventh avenues, 3 holes in July, 5 holes in November; between Fifth and Sixth avenues, 3 cuts in July, 2 holes in November.

Forty-seventh street—Between Tenth and Eleventh avenues, generally uneven condition in July, 10 holes in November; between Ninth and Tenth avenues, 2 cuts in July, 2 in November; between Eighth and Ninth avenues, 2 holes in July, 2 in November; between Broadway and Eighth avenue, 1 cut in July, 1 in November; between Seventh avenue and Broadway, 1 cut in July, 3 holes in November; between Sixth and Seventh avenues, no holes in July, 2 in November; between Fifth and Sixth avenues, 1 cut and 2 holes in July, 28 holes in November.

Forty-eighth street—Between Tenth and Eleventh avenues, 7 holes in July, 1 in November; between Ninth and Tenth avenues, 3 holes in July, repaired in November; between Sixth and Seventh avenues, no holes in July, 2 holes in November.

Forty-ninth street—Between Tenth and Eleventh avenues, no holes in July, 14 in November; between Ninth and Tenth avenues, 3 holes in July, 5 in November; between Eighth and Ninth avenues, 3 holes in July, 4 in November; between Broadway and Eighth avenue, 1

hole in July and 1 hole in November; between Sixth and Seventh avenues, 1 hole in July, repaired in November.

Fiftieth street—Between Tenth and Eleventh avenues, 4 holes and 2 cuts in July, 24 holes in November; between Ninth and Tenth avenues, 4 holes in July, repaired in November; between Broadway and Eighth avenue, no holes in July, 3 in November; between Sixth and Seventh avenues, 1 cut in July, repaired in November; between Fifth and Sixth avenues, 2 cuts in July, repaired in November.

Fifty-first street—Between Tenth and Eleventh avenues, 12 holes in July, repaired in November; between Ninth and Tenth avenues, 6 holes and 6 cuts in July, 2 holes in November; between Broadway and Eighth avenues, no holes in July, 1 hole in November; between Sixth and Seventh avenues, 1 hole in July, 2 in November; between Fifth and Sixth avenues, no holes in July, 6 in November.

Fifty-second street—Between Tenth and Eleventh avenues, 7 holes and 1 cut in July, 1 in November; between Ninth and Tenth avenues, 16 holes and 1 cut in July, repaired in November; between Eighth and Ninth avenues, 3 holes and 1 cut in July, 2 holes in November; between Broadway and Eighth avenue, 4 holes and 1 cut in July, 1 hole in November; between Fifth and Sixth avenues, 1 cut in July, 2 holes in November.

Fifty-third street—Between Fifth and Sixth avenues, in July 4 cuts, 1 trench and 1 hole, in November 2 holes.

Fifty-fourth street—Between Broadway and Eighth avenues, 1 hole in July, repaired in November; between Sixth and Seventh avenues, 1 hole in July, repaired in November; between Fifth and Sixth avenues, 1 hole and 2 cuts in July, 4 holes in November.

Fifty-fifth street—Between Sixth and Seventh avenues, 5 holes and 1 cut in July, 5 holes in November; between Fifth and Sixth avenues, 1 hole in July, 2 in November.

Fifty-sixth street—Between Sixth and Seventh avenues, no holes in July, 1 in November; between Fifth and Sixth avenues, 13 holes and 2 cuts in July, 1 hole in November.

Fifty-eighth street—Between Eighth and Ninth avenues, 1 hole in July, repaired in November; between Seventh avenue and Broadway, 1 hole and 1 cut in July, repaired in November; between Sixth and Seventh avenue, 1 cut and 2 holes in July, repaired in November; between Fifth and Sixth avenues, 3 holes in July, 3 holes in November.

Fifty-ninth street—Between Sixth and Seventh avenues, 3 cuts in July, repaired in November; between Fifth and Sixth avenues, 1 hole and a generally broken up condition in July, very bad in November.

The area between Fourteenth and Thirtieth streets, Fifth avenue and Avenue D—The only north and south street inspected in November in that area was First avenue. The record is: Between Twenty-first and Twenty-second streets, no holes in July, 3 in November; between Twenty-second and Twenty-third streets, no holes in July, 7 in November; between Twenty-third and Twenty-fourth streets, no holes in July, 11 in November; between Twenty-fourth and Twenty-fifth streets, no holes in July, 15 in November; between Twenty-fifth and Twenty-sixth streets, no holes in July, 17 in November; between Twenty-sixth and Twenty-seventh streets, no holes in July, 6 in November; between Twenty-seventh and Twenty-eighth streets, no holes in July, 3 in November; between Twenty-eighth and Twenty-ninth streets, no holes in July, 17 in November; between Twenty-ninth and Thirtieth streets, 1 hole and uneven condition in July, 15 holes in November.

Sixteenth street—Between Third and Lexington avenues, 2 holes in July, 1 in November; between Second and Third avenues, 2 holes and 2 cuts in July, 2 in No-

vember; between Avenue A and First avenue, 18 holes and 2 cuts in July, 18 holes in November; between Avenue B and Avenue A, 4 holes in July, 11 holes in November; between Avenue D and Avenue C, 3 holes and 3 cuts in July, repaired in November.

Twentieth street—Between First and Second avenues, 2 holes in July, 7 in November.

Twenty-fourth street—Between Madison and Fourth avenues, 9 holes and 2 cuts in July, 11 in November; between Lexington and Fourth avenues, 3 holes in July, 10 in November; between Third avenue and Lexington, 10 holes in July, 5 in November; between Second and Third avenues, 3 holes in July, repaired in November; between Avenue A and First avenue, 1 cut in July, 17 holes in November.

By Commissioner HERTLE:

*Q.* When you say cut, does that mean plumber's opening?

*A.* Either plumber's opening or a service trench of some kind.

The WITNESS — Twenty-sixth street — Between Fifth and Madison avenues, 6 holes and 2 cuts in July, repaired in November; between Fourth avenue and Madison avenue, 3 holes and generally uneven surface in July, repaired in November; between Lexington and Fourth avenues, 3 holes in July, 13 in November; between Third and Lexington avenues, 1 hole in July, 6 in November; between Second and Third avenues, 1 hole in July, 10 in November; between First and Second avenues, 3 holes in July, 5 in November.

Twenty-seventh street — Between Fifth avenue and Broadway, 6 cuts and 3 holes in July, repaired in November; between Broadway and Madison avenue, 1 hole in July and 3 holes in November; between Madison and

Fourth avenues, no holes in July and 4 in November; between Third and Lexington avenues, 1 hole in July, repaired in November; between Second and Third avenues, 4 holes in July, 1 in November; between First and Second avenues, 2 holes in July, 6 in November.

Twenty-eighth street—Between Second and Third avenues, 4 holes in July, 5 in November.

Twenty-ninth street—Between Second and Third avenues, 12 holes and 1 cut in July, 12 holes in November; between First and Second avenues, 14 holes in July, 3 holes in November.

From Thirtieth to Forty-fifth street, between Eleventh avenue and Fifth avenue:

Thirtieth street—Between Tenth and Eleventh avenue, 5 holes in July, 12 in November; between Ninth and Tenth avenues, 5 holes and uneven condition in July, 1 hole in November; between Eighth and Ninth avenues, 8 holes in July, 8 holes in November; between Seventh and Eighth avenues, 8 holes in July, 16 in November; between Broadway and Seventh avenue, 8 holes and 1 cut in July, 10 holes in November; between Fifth and Sixth avenues, 1 hole in July, repaired in November.

Thirty-fourth street—Between Eighth and Ninth avenues, 1 cut in July, 6 holes in November; between Seventh and Eighth avenues, 1 trench in July, 1 hole in November; between Broadway and Seventh avenue, 5 holes and 1 cut in July, 3 holes in November; between Fifth and Sixth avenues, 3 cuts in July, 3 cuts and a trench in November.

Thirty-fifth street—Between Ninth and Tenth avenues, no holes in July, 16 holes in November; between Eighth and Ninth avenues, 5 holes and a cut in July, 3 holes and a trench in November; between Seventh and Eighth avenues, 9 holes in July and 9 holes and a trench in November; between Broadway and Seventh avenue, 2 holes and



2 cuts in July, 3 holes in November; between Sixth avenue and Broadway, 5 holes in July, repaired in November; between Fifth and Sixth avenues, 3 cuts and 1 hole in July, 2 holes in November.

Thirty-sixth street—Between Ninth and Tenth avenues, 5 holes in July, 14 in November; between Eighth and Ninth avenues, 7 holes and a cut in July, repaired in November; between Seventh and Eighth avenues, 3 holes in July, repaired in November; between Seventh avenue and Broadway, uneven condition in July, 3 holes and uneven condition in November; between Sixth avenue and Broadway, 2 holes in July, 1 hole in November; between Fifth and Sixth avenues, 1 hole in July, 1 hole in November.

Thirty-seventh street—Between Tenth and Eleventh avenues, 11 holes and 2 cuts in July, repaired in November; between Ninth and Tenth avenues, 1 hole in July, repaired in November; between Eighth and Ninth avenues, 2 holes in July, repaired in November; between Seventh and Eighth avenues, 9 holes and 1 cut in July, repaired in November; between Seventh avenue and Broadway, 1 hole in July, repaired in November.

Thirty-eighth street — Between Tenth and Eleventh avenues, 17 holes in July, 25 holes in November; between Ninth and Tenth avenues, no holes in July, 27 holes in November; between Seventh and Eighth avenues, 4 cuts in July, 4 cuts in November.

Thirty-ninth street—Between Tenth and Eleventh avenues, 43 holes in July, repaired in November; between Ninth and Tenth avenues, 14 holes in July, repaired in November; between Eighth and Ninth avenues, 17 holes in July, repaired in November; between Seventh and Eighth avenues, 2 holes and 2 cuts in July, 16 holes in November; between Seventh avenue and Broadway, no holes in July, 2 holes in November; between Sixth avenue and Broadway, 1 cut in July, repaired in November.

ber; between Fifth and Sixth avenues, no holes in July, 5 holes in November.

Fortieth street—Between Ninth and Tenth avenues, 2 cuts in July, repaired in November; between Eighth and Ninth avenues, 1 cut in July, repaired in November; between Seventh and Eighth avenues, 1 cut in July, 7 holes in November; trench through the street from Eighth avenue to Fifth avenue; between Fifth and Sixth avenues, 13 holes in July; in November the condition was so badly broken up that it was impossible to count the holes.

Forty-first street—Between Ninth and Tenth avenues, 9 holes in July, repaired in November; between Eighth and Ninth avenues, 2 holes in July, 3 holes in November; between Seventh and Eighth avenues, no holes in July, 3 in November; between Seventh avenue and Broadway, no holes in July, 7 in November; between Broadway and Sixth avenue, 1 hole and 1 cut in July, 3 in November.

Forty-second street—Between Ninth and Tenth avenues, 2 holes in July, 10 in November; between Eighth and Ninth avenues, no holes in July, 3 in November; between Seventh and Eighth avenues, 1 hole in July, 7 in November; between Seventh avenue and Broadway, no holes in July, 1 in November; between Sixth avenue and Broadway, 2 cuts in July, 4 holes in November; between Fifth and Sixth avenues, 5 cuts and 2 holes in November, repaired in July.

Forty-third street—Between Tenth and Eleventh avenues, 1 cut in July and 1 in November; between Ninth and Tenth avenues, 1 hole in July, 2 in November; between Eighth and Ninth avenues, 6 holes in July, repaired in November; between Seventh and Eighth avenues, 10 holes in July, 2 in November; between Broadway and Seventh avenue, no holes in July, 2 in November; between Fifth and Sixth avenues, 2 holes and 1 cut in July, 7 in November.

Forty-fourth street—Between Tenth and Eleventh avenues, 4 holes and 3 cuts in July, 9 in November; between Eighth and Ninth avenues, 2 holes and 2 cuts in July, 2 in November; between Seventh and Eighth avenues, 1 cut in July, 1 in November; between Sixth avenue and Broadway, 5 holes and 3 cuts in July, 12 holes and cuts in November; between Fifth and Sixth avenues, 9 holes in July, 12 in November.

Ninety-fourth to 110th street, Fifth avenue to First avenue:

First avenue—Between Ninety-sixth and Ninety-seventh streets, no defects in July, generally uneven in November; Ninety-eighth to Ninety-ninth street, no holes in July, 2 holes in November; 100th to 101st street, 2 cuts in July, repaired in November; 101st to 102d street, 1 cut in July, repaired in November; 103d to 104th street, no holes in July, 2 holes in November; 104th to 105th street, 2 cuts in July, 4 holes in November; 105th to 106th street, no holes in July, 9 in November; 106th to 107th street, 2 cuts and 1 hole in July, 5 holes in November.

109th street—Between Fifth and Madison avenues, 6 cuts in July, repaired in November; Madison to Park avenue, 2 holes in July, 2 holes in November; Park avenue to Lexington avenue, 4 holes in July, 1 in November; Lexington to Third avenue, 3 holes in July, 6 in November; Third avenue to Second avenue, 5 holes and 1 cut in July, 1 hole in November; Second avenue to First avenue, 5 holes and 1 cut in July, 2 holes in November.

Ninety-sixth to 110th street, Eighth avenue to Riverside Drive:

Manhattan avenue—100th to 101st street, 5 cuts and 4 holes, generally uneven condition of the street, repairs in progress November 1; 101st to 102d street, 8 cuts and 12 holes in July, 95 holes and generally broken up condi-

tion in November; 102d to 103d street, 4 holes and generally broken surface in July, and 35 holes and generally broken surface in November.

108th street—Between Manhattan and Columbus avenues, 1 hole in July and 1 hole in November; between Amsterdam avenue and Broadway, 9 holes, 1 cut and generally broken surface in July, 43 holes and generally broken surface in November.

109th street—Between Columbus and Amsterdam avenues, 2 holes in July, 3 in November; between Amsterdam avenue and Broadway, 3 cuts, 1 trench and generally broken surface in July, 11 holes and generally broken surface in November; between West End avenue and Riverside, 1 cut in July, 1 cut in November.

Convent avenue, from 128th to 141st street:

From 128th to 129th street surface of pavement entirely gone in July and still gone in November; 130th to 131st street, no holes in July, 4 in November; 131st to 133d street, 4 holes and generally bad condition in July, 26 holes in November; 133d to 134th street, 1 hole in July, 2 in November; 134th to 135th street, 4 holes in July and 7 in November; 135th to 136th street, generally bad condition in July, 15 holes in November; 136th to 137th street, generally bad condition in November; 137th to 138th street, 1 hole in July, generally bad condition in November; 138th to 139th street, 3 cuts and generally bad condition in July, generally bad condition in November; 140th to 141st street, 3 cuts in July, generally bad condition in November.

126th to 140th street, from Manhattan avenue to First avenue:

126th street—Between Manhattan and Eighth avenue, no holes in July, 9 holes in November; between Seventh and Eighth avenues, 7 holes in July, 4 in November; be-

tween Lenox and Seventh avenues, 1 hole and 1 cut in July, 3 in November; between Fifth and Lenox avenues, 3 holes in July, repaired in November; between Lexington and Park avenues, 1 hole and 1 cut in July, 1 hole in November; between Lexington and Third avenues, 1 cut and 1 hole in July, 3 holes in November; between Second and Third avenues, 15 cuts in July, 15 cuts in November; between Second and First avenues, 4 holes in July and 4 holes in November.

127th street—Between Seventh and Eighth avenues, no holes in July, 1 in November; between Seventh and Lenox avenues, 1 hole and generally bad condition in July, repaired in November; between Fifth and Madison avenues, 2 holes in July, repaired in November; between Madison and Park avenues, 2 holes and 2 cuts in July, repaired in November; between Park and Lexington avenues, 2 holes and 2 cuts in July, 2 holes in November; between Lexington and Third avenues, 1 cut in July, repaired in November.

130th street—Between Seventh and Eighth avenues, no holes in July, 2 in November; between Seventh and Lexington avenues, 1 hole and 1 cut in July, repaired in November.

131st street—Between Seventh and Lenox avenues, 2 cuts in July, 1 in November; between Lenox and Fifth avenue, 8 holes in July, repaired in November; between Fifth and Madison avenues, 4 holes in July, repaired in November; between Madison and Park avenues, 3 holes in July, 1 in November.

135th street—Between Seventh and Eighth avenues, 2 cuts in July, 7 holes in November; between Seventh and Lenox avenues, generally bad condition in July, same condition in November; between Fifth and Madison avenue, 3 cuts and 2 holes in July, 1 large cut in November.

137th street—Between Seventh and Eighth avenues, generally bad condition and 4 holes in July, generally bad

condition in November; between Seventh and Lenox avenues, 1 cut in July, 10 holes in November; between Lenox and Fifth avenues, 5 cuts and 5 holes in July, repaired in November.

110th to 126th street, Ninth avenue to Avenue A:

111th street—Between Manhattan and Seventh avenue, in generally bad condition in July; between Lenox and Fifth avenues, 8 holes, 1 cut and generally bad condition in July, 47 holes in November; between Second and Third avenues, 27 holes and 3 cuts in July, 7 holes in November; between First and Second avenues, 6 holes in July, 4 holes in November.

112th street—Between Lenox and Fifth avenues, 1 hole in July, 7 in November; between Fifth and Madison avenues, 5 holes in July, 5 holes and 1 trench in November; between Madison and Park avenues, 3 cuts and 3 holes in July, repaired in November; between Lexington and Third avenues, 1 cut in July, repaired in November; between Third and Second avenues, 8 cuts and 1 hole in July, repaired in November; between Second and First avenue, 1 cut in July, 1 in November.

113th street—Between First and Second avenues, 3 cuts and 1 trench in July, 3 cuts in November.

114th street—Between Lenox and Fifth avenues, 2 cuts and 1 hole in July, 2 cuts in November; between Fifth and Madison avenue, 4 holes in July, repaired in November.

116th street—Between First and Second avenues, 8 holes in July, 15 in November.

117th street—Between First and Second avenues, 1 cut in July, repaired in November; between First avenue and Avenue A, 9 cuts in July, repaired in November; between Second and Third avenues, 1 hole in July, repaired in November.

119th street—Between Second and Third avenues, 9 holes and 3 cuts in July, repaired in November; between First and Second avenues, 3 holes and 1 cut in July, repaired in November; between First avenue and Avenue A, 5 holes in July, repaired in November.

123d street—Between Seventh and Eighth avenues, 1 hole in July, repaired in November; between Seventh and Lenox avenues, 2 cuts in July, 1 hole in November; between Fifth avenue and Madison avenue, 1 cut in July, repaired in November; between Park avenue and Lexington avenue, 1 cut in July, repaired in November; between Lexington and Third avenues, 3 cuts and 1 hole in July, repaired in November; between Second and Third avenues, 2 cuts and 1 hole in July, repaired in November; between First and Second avenues, 7 cuts in July, repaired in November.

125th street—Between Seventh and Lenox avenues, 3 cuts in July, 5 in November; between Lenox and Fifth avenues, 1 hole in July, 2 in November.

By Mr. MITCHEL:

*Q.* Now, Mr. DeBerard, when you refer to holes do you mean defects due to wear and tear?

*A.* Yes.

*Q.* Or to what cause, as far as you could judge?

*A.* Defects due to wear and tear, as far as it is possible to judge. I have discriminated between openings made for services of various kinds and holes that were due to traffic.

*Q.* And what do cuts refer to?

*A.* Cuts refer to openings made by plumbers or by electric lighting companies or gas companies.

*Q.* Does your record show whether repairs were made during the period that intervened between the two inspections, more frequently in the case of cuts or holes?

*A.* I have made no attempt to discriminate in that way.



*Q.* And you could not say which had been more frequently repaired?

*A.* No. In fact, it was very difficult to discriminate between the two by reason of the fact that after a cut has been made for some time it becomes so worn that you cannot distinguish it very frequently from a traffic hole.

*Q.* Now, you say that these cards from which you have just quoted form a part of the comparative inspections?

*A.* Yes.

*Q.* Beyond these cards, what did you find as to the general condition of the streets in November as compared with July?

*A.* I found it somewhat better.

*Q.* Outside these cards generally?

*A.* Well, speaking generally, the condition had improved over that of July. I attribute that in large part, however, to the activity of the Association in the department. We were poking them up all the while.

*Q.* What were you doing in the department yourself during that time?

*A.* I was getting information about their methods and the manner of operation, the system or lack of system of inspection, and so on.

*Q.* Was it during this time that you were attempting to make those recommendations that you spoke of?

*A.* No, those had been made the year previously and had been in part put into effect in the latter part of 1905; this inspection refers to 1906.

*Q.* Well, then, just what were the steps that you were taking within the department at this time?

*A.* To familiarize myself with the routine and methods in order to have an intelligent opinion as to whether the office was well administered or not.

*Q.* Were you examining the records in that office?

*A.* To some extent. I did not look into the records, but I spent considerable time in the department in conference with the various officials, learning the routine.

*Q.* Now, you say at the time that this inspection was made in November that you took some figures?

*A.* Yes.

*Q.* Well, now, following this inspection, what was done by the Association?

*A.* Well, the Association had taken no—following the inspection of November?

*Q.* Of November.

*A.* It made another partial inspection on the 2d of April, this month.

*Q.* Was nothing done between those dates?

*A.* Nothing, except in the general way of studying the routine of the department, for the reason that the Mayor had in the meantime complied with our request to appoint a commission to investigate the whole subject, and that commission had been actively engaged in the work, and the Merchants' Association did not wish to interfere in any way with the functions of that commission.

*Q.* Then the next active step was the inspection of the 2d of April of this year?

*A.* Yes.

Mr. MITCHEL—If the Commission please, as it is half-past twelve now, before taking up that matter I think it might be well to adjourn to two o'clock.

Mr. LITTLETON—May I ask for my own information what the sessions of the Commission are going to be; that is, during what hours they are going on, whether they will sit all day, as a rule, or half a day?

Mr. MITCHEL—I suggest that the Commission sit about three times a week, from ten-thirty to one and from two to four.

Mr. LITTLETON—The only reason I suggested that is that we frequently have engagements in the afternoon.

Mr. MITCHEL—If it is more convenient I have no objection to sitting only a half a day at a time. But I think

until we get through with this routine evidence we should sit all day.

Commissioner HERTLE—From half-past ten to one, and from two to four?

Mr. MITCHEL—Yes, for the time being, for the next one or two sessions, and after that we can adopt the suggestion.

Recess until two P. M.

#### AFTER RECESS:

Commissioner HERTLE—Before we proceed I want to make an announcement, please. We desire to announce and to make it a part of this record that the thirteen witnesses whose names we called at ten-thirty o'clock this morning having failed to obey our subpoena, we have directed the Corporation Counsel to take the necessary steps to compel their attendance before us.

Mr. MITCHEL—Messrs. Commissioners, the Corporation Counsel is at present preparing the necessary papers, and an application will be made for a warrant to compel their attendance before the Commission.

Continuation of the examination of FREDERICK B. DE  
BERARD:

By Mr. MITCHEL:

*Q.* Mr. De Berard, what record, if any, did you make of the inspection which you made on the 2d of April of this year?

*A.* I visited a number of the places photographed in November previous and made photographs showing the present conditions of the places noted as defective in November.

*Q.* Were those places photographed in November and rephotographed on the 2d of April this year holes or de-

fects in the pavements which had been found in July of 1906?

A. In many cases they were.

Q. Did you make any other record of the inspection made on the 2d of April of this year?

A. Only as relates to those particular defects that were photographed. I observed, however, the general condition of the streets. I went over a considerable extent of territory, observed the conditions to satisfy myself as to whether there had been a general improvement or a general deterioration of the pavements.

Q. What impressions did you form as to the condition of the streets on the 2d of April?

A. That these streets are in much worse condition, speaking generally, at the present time than at any previous time when I have made inspections.

Q. What did you find the condition of those particular streets where you had noted defects in November?

A. In some cases repairs had been made. In other cases they had not been made. The photographs were taken in the cases where the conditions remained substantially unchanged.

Q. Are you able to say whether in the majority of cases repairs had been made or had not been made?

A. I am not able to state.

Q. (Handing photograph.) Is this one of the photographs made in November?

A. It is.

Q. Of what spot is that photograph?

A. Made November 9, 1906, the east side of Sixth avenue, Eighth to Ninth street.

Q. Can you say whether that defect shown in that photograph existed last July?

A. I don't think it did. That was caused by the laying of the auxiliary water supply in that neighborhood, and the work had not reached that point in July.

By Commissioner HERTLE:

*Q.* What street was that?

*A.* East side of Sixth avenue, Eighth to Ninth street.

By Mr. MITCHEL:

*Q.* (Showing photograph) Is this a photograph taken in November?

*A.* This is No. 5A, a photograph of the same site, taken on the 2d of April.

*Q.* Does it show the conditions unchanged?

*A.* The condition is substantially unchanged. The ridge has broken down a little, but, on the other hand, the adjacent pavement is more broken up in the later photograph than in the first.

Mr. MITCHEL—Mr. Stenographer, have you a record of that for identification?

The WITNESS—The first one is No. 1.

*Q.* (Showing photograph) Will you tell us what place this is a photograph of, and when taken?

*A.* No. 2, November 9, 1906, corner of West Twentieth street and Seventh avenue; condition practically unchanged from that of July.

*Q.* Did your record of July, in conjunction with this examination, show that the condition was unchanged?

*A.* It did.

*Q.* What kind of a defect is this shown here, and to what can you say it is due? *A.* Due to a long trench due to the digging of the auxiliary water supply mains in part, but practically the entire surface of the street adjacent to the manhole and adjacent to that trench in Twentieth street, east of Seventh avenue and extending practically across Seventh avenue, is completely broken up, and the conditions were the same in July. The part of the defects due to wear have since been repaired, but the defects due to the protrusion of the trench still remained.

*Q.* (Handing photograph) Will you identify this photograph?

*A.* No. 3, November 9, 1906, West Twenty-third street, east of Tenth avenue, 31 wear holes between Ninth and Tenth avenues. In July 23 holes were recorded; seemingly no repairs have been made.

*Q.* Can you state to what cause that was due?

*A.* Seemingly due to wear and tear.

*Q.* (Handing photograph) Will you identify this photograph?

*A.* Yes.

*Q.* This defect, then, your record shows was found in July and still remained in November?

*A.* No. 4, November 9, 1906, cuts opposite Nos. 30, 32 and 34 West Thirty-fourth street. These cuts existed in July; elsewhere in the block repairs have since been made.

*Q.* Can you state your opinion as to the cause of those cuts?

*A.* They seemed to be cuts made to supply the adjacent buildings with either electric light or gas service.

*Q.* This defect was found in July and still existed in November?

*A.* Still existed in November.

*Q.* (showing photograph) Will you identify that one?

*A.* No. 5, November 9, 1906 — West Thirty-ninth street, between Seventh and Eighth avenues, showing obstruction by building materials and broken pavement for 115 feet, 16 holes and cuts in this block. The pavement was practically worn away in the places between piles of building material on one side and the curb on the other.

*Q.* Can you state what that defect was due to?

*A.* Seemingly to wear and tear.

*Q.* Is that also a defect which you found in July and still continued in November?

*A.* I have no notation as to that.

*Q.* As to whether it existed in July or not?

*A.* No.

*Q.* (showing photograph) Identify the next one.

*A.* No. 6, November 9, 1906—Times Square, Broadway, southwest corner of Forty-fifth street; 10 holes on west side of Broadway, between Forty-fourth and Forty-fifth streets, opposite Hotel Astor; 4 holes noted in July. Those are also due to wear and tear.

*Q.* Existed in July and continued in November?

*A.* Yes. No. 7, November 9, 1906—Times Square, west of Broadway, north of Forty-fourth street, opposite Hotel Astor. I have no notation as to the existence of those holes in July.

*Q.* Can you express an opinion as to the cause?

*A.* Seemingly due to traffic.

*Q.* (showing photograph) Identify that.

*A.* No. 8, November 9, 1906—Times Square, east side of Broadway, between Forty-fourth and Forty-fifth streets, opposite New York Theatre. Biggest hole, 8 feet by 4 feet, 6 holes in the block, 4 holes noted in July.

*Q.* This defect in part existed in July and continued in November?

*A.* Yes.

*Q.* Can you state to what that was due?

*A.* Seemingly to traffic.

*Q.* Wear and tear?

*A.* Yes.

*Q.* Identify the next one?

*A.* No. 9, November 9, 1906—Times Square, west side of Broadway, between Forty-fifth and Forty-sixth streets; 15 holes in block, in bad condition in July. Those are likewise wear holes.

*Q.* When you say in bad condition in July, do you mean those same holes existed?

*A.* I mean in general that the pavement is uneven and full of minor depressions; could scarcely class them as holes, because the surface was not entirely gone, but beginning to crumble away.

*Q.* Identify the next one, please.

*A.* No. 10, November 9, 1906—West Forty-seventh



street, west from Fifth avenue, showing noted a needless obstruction of street by building material. Block in fair condition in July. Now has 28 holes.

*Q.* Then these defects occurred between July and November?

*A.* July and November.

*Q.* Can you state what those holes are due to?

*A.* Those are seemingly wear holes. No. 11, November 10, 1906—Corner of Bayard and Forsythe streets; trench on Bayard street, 3 to 6 inches below surface; ridge on Forsythe street protrudes 3 to 6 inches.

*Q.* Can you state from your records whether that existed in July?

*A.* Not from this record.

*Q.* Can you state what that is due to, what cause that was due to?

*A.* Those are presumably trenches for conduits or pipes of some sort. They existed generally through that section of the East Side at that time and subsequently. No. 12, November 10, 1906—Corner of Hester and Allen streets. Example of temporary repairs. Blocks protrude 8 to 10 inches.

*Q.* Is there any record showing whether that existed in July?

*A.* No, there is not in this particular case.

*Q.* The next.

*A.* I will explain about that, that the work of that kind was in progress in July throughout that section at the time that the first observation was made.

*Q.* That is, work of public service corporations?

*A.* I assume they were public service corporations. In some instances where the work was completed notations of the date were made. In other cases where the work was in progress it would not appear on the record.

*Q.* It was not, however, work in connection with the high pressure mains?

*A.* Not in that section, no. No. 13, November 10, 1906—Corner Rivington and Sheriff streets. Broken

surface, 30 feet by 10 feet, manhole protrudes 6 inches. That is due in part to wear and tear and in part to cuts of some sort that are made in the pavement.

*Q.* Have you a record showing whether that existed in July?

*A.* Probably not, otherwise it would appear on this.

*Q.* The next?

*A.* No. 14, November 10, 1906—Corner Rivington and Pitt streets. Broken surface, 20 feet by 20 feet, protrusion 8 to 10 inches; hole 8 feet by 8 feet opposite No. 214 Rivington street; noted in July.

*Q.* This picture was taken in November?

*A.* In November.

*Q.* Did you take a picture of that particular defect on the 2d of April?

*A.* I did.

*Q.* What is it?

*A.* No. 1A, April 2, 1907—Corner of Rivington and Pitt streets. Wear holes shown existed in part in November. At that time there were also dangerous ridges and depressions, due to trenches. The latter have been repaired, and the wear holes remained and have increased in size. Some of them were also noted in July. Compare No. 14, November 10, 1906. Note also illegal use of street by builders' shed and dangerous protrusion of dangling metal sheets attached thereto. General condition of Rivington street east of Pitt very bad. See No. 2A. This is No. 2A—Rivington street east from Pitt, April 2, 1907, shown in particular from the photograph in November.

*Q.* No. 14 and No. 1A, No. 14 taken in November and No. 1A on the 2d of April, show a continuation of the defect found in November?

*A.* In part. They have been remedied in part and in part they remained and increased.

*Q.* Did the records of the first inspection show in part or in whole that those defects existed in July?

*A.* They showed they existed in part in July.

*Q.* Then there was a continuous condition of disrepair in that spot from July until the 2d of April of this year?

*A.* In part.

*Q.* This No. 2A which you have just mentioned is of what locality?

*A.* That is the same locality, looking eastward.

*Q.* Then this shows the same defect from another point of view?

*A.* No, it shows Pitt street east, it shows Rivington street east from Pitt. The other shows Rivington street west from Pitt, so the two together show the general condition of Rivington street on both sides of Pitt.

*Q.* Then those two photographs taken together show the continuous condition of the street?

*A.* Yes.

*Q.* What is this photograph?

*A.* No. 15, November 10, 1906—Opposite No. 122 Rivington street. About 4 feet by 2 feet, 8 inches deep.

*Q.* Did this condition exist in July?

*A.* I have no notation of that.

*Q.* Can you express an opinion as to the cause of that?

*A.* It seems to be due to a settling of the foundation. A number of those holes were of that character; the foundation would settle away a little and then the surface would grind off.

By Commissioner HERTLE:

*Q.* What was it, a concrete foundation?

*A.* No.

*Q.* On stone?

*A.* On stone blocks. No. 16, November 10, 1906—East Twenty-seventh street, between First and Second avenues; 6 holes in the block, largest 38 feet long by 20 feet wide. Practically the same condition in July. Owner of adjacent property said pavement has been in ruinous condition for about a year. Has made several complaints. Repair gang came to make repairs in September, but were called off and nothing done.

*Q.* Mr. De Berard, you say there on the note on the back of that photograph that the adjacent owner states—was that statement made to you personally?

*A.* It was made to me by a man who said he was the owner of the adjacent lands.

*Q.* At this point I will ask you were these notes on the backs of these photographs made by you personally?

*A.* They were, made from my memoranda taken at the time.

*Q.* Take up the next.

*A.* No. 17, November 10, 1906—West 111th street, west of Fifth avenue; 1 hole 25 feet by 15 feet at corner, 47 holes in the block, many of very large size. This street noted in July as one of the worst in the city. The hole in the foreground has since been temporarily repaired by loose blocks, as shown. There are several of these that relate to the block, and I think perhaps I better give the originals first and then the others in sequence.

*Q.* The next?

*A.* November 10, 1906—West 111th street, between Fifth and Lenox avenues, opposite School 176. Condition same as in July. That whole block was in a very dilapidated condition, not only in November and in July, but in April of 1905 and in August of 1904. We noted the general condition at each of those times, and in July, 1906, I inquired of the policeman on the post how long the street had been in that condition, and he said that he had made daily or practically daily reports to Police Headquarters of numerous dangerous holes in that block for a period of about two years, and, as I have stated in August, 1904, we noted in that block and in blocks immediately adjacent some extremely dangerous holes filled with huge—in one case with four or five huge blocks of stone, 18 inches by a foot in size, loosely lying in the roadway, and inquiry in the neighborhood brought out the alleged fact that there had been numerous accidents due to the general condition of the street.

*Q.* Then your inspections showed a continuous condition of disrepair at this point since August, 1904?

*A.* Yes. These photographs relate to that same block (indicating). No. 13A, April 2, 1907—West 111th street, between Fifth and Lenox avenues. Hole in foreground about 24 by 18 feet in largest dimensions. Entire block in a ruinous condition; 92 holes and depressions exist. Several are filled with broken asphalt and rubbish and are in dangerous condition. Nos. 14A, 15A and 16A show the general condition of block. For upwards of two years the Police Department had repeatedly reported these holes as dangerous. They were noted by the Merchants' Association in the fall of 1905, in July, 1906, and in November, 1906. Some of the holes noted in November, 1906, had been partially but not effectively repaired.

*Q.* Take up the next.

*A.* No. 19, November 10, 1906—Corner of First avenue and Ninety-ninth street. Trench 15 feet by 2 feet. Street Cleaning foreman said the depression had been there between two and three months.

*Q.* Do your notes show whether that hole existed in July?

*A.* It was not recorded in July.

*Q.* It was not recorded in July?

*A.* No. Nos. 20 and 21, November 10, 1906—East 101st street, between First and Second avenues. In this block are 44 holes, most of them very large, in one case about 20 feet by 15 feet. Same general condition as in July. No. 22, November 10, 1906—First avenue, corner of Twenty-sixth street. No. 3A, April 2, 1907—Corner of First avenue and East Twenty-sixth street. Compare No. 22, November 10, 1906.

*Q.* Now, are those two photographs taken on the same spot?

*A.* Those are the same spot.

*Q.* Was No. 22 taken ———

*A.* This is the one (indicating).

*Q.* Then it is No. 4A?

*A.* No. 4A.

*Q.* That corresponds to No. 22?

*A.* Yes, No. 4A.

*Q.* No. 4A and No. 22 are of the same spot?

*A.* Yes, sir.

*Q.* When was No. 22 taken?

*A.* No. 22 was taken November 10.

*Q.* No. 4A on April 2 of this year?

*A.* Yes. No. 3A, April 2, 1907—Corner of First avenue and East Twenty-sixth street. That is adjacent to No. 22.

*Q.* First taking up No. 22, was that condition recorded in your notes of July?

*A.* It was not.

*Q.* Can you express an opinion as to the cause of that defect?

*A.* It seems to me due to traffic.

*Q.* What condition does the photograph No. 4A of April 2 show?

*A.* Defects seemingly due to traffic likewise.

*Q.* Does the defect remain?

*A.* Yes.

*Q.* And this defect found in November continued until the 2d of April of this year?

*A.* It did.

*Q.* Taking up No. 3A, that is at a point adjacent to No. 22?

*A.* It shows the general appearance of the street and that it is in very much worse shape than it was in November.

*Q.* This being taken on April 2 of this year?

*A.* Yes. No. 23, November 13, 1906—Clarke street, between Broome and Dominick. That shows a trench apparently put in there for service pipes for the adjacent school. It shows the manner in which the contractors temporarily restored the surface of the streets.

No. 24, November 13, 1906—Macdougall street, south of West Houston, about 3 feet by 2 feet 10 inches deep.

*Q.* Was that point photographed in April of this year?

*A.* It was photographed on April 2, photograph No. 9A—Macdougall south of Houston. In November there was a dangerous cave-in at this point, shown by No. 24 of November 13, 1906. It had been temporarily repaired, but the asphalt has not been replaced. The nature of the cavity indicates a broken sewer below. Immediately adjacent to that, No. 10A, of April 2, shows Macdougall street, corner of Houston street, the track badly undermined and sunken. Depression 16 inches deep at the lowest point. A rule penetrated crevice to depth of 30 inches without touching the bottom. Very dangerous. Probably caved in sewer. See No. 9A.

*Q.* The photographs Nos. 9A and 10A being taken on the 2d of April, 1907?

*A.* Yes. No. 25, November 13, 1906—Crossing of Clarkson, corner of Hudson street. About 8 feet wide across entire width of street. Same conditions in July. I may say that has since been repaired by taking off the asphalt and leaving nothing but the stone blocks.

*Q.* That is, how much of the street has been cleared of asphalt?

*A.* There was just the crossing, just about 10 feet wide, the whole of which has been taken away.

*Q.* Nothing is left but the foundation of a pavement?

*A.* That is all.

*Q.* The surface being entirely gone?

*A.* That is right. No. 26, November 13, 1906—West side of Hudson street, between Clarkson and Leroy.

*Q.* What does that show?

*A.* That shows the asphalt gutter worn into ribbons. No. 11A of April 2, 1907—Hudson street, between Clarkson and Leroy; condition unchanged since November.

*Q.* Is that the same point?

*A.* That is the same.



*Q.* As shown in No. 26?

*A.* Same point.

*Q.* It shows the condition unchanged?

*A.* I may say that practically the whole of that asphalt strip along Hudson street, practically the whole distance, is full of ruts and depressions, perhaps not as bad as this, but in many places of considerable extent. No. 27, November 13, 1906—West Fourth street, between Fifth avenue and University place. Hole about 6 by 8 feet. That is seemingly due to a cut or depression of some kind, the paving stones having been loosely replaced, but no repairs made to the asphalt pavement.

No. 28, November 13, 1906—Corner of Waverley and University places. Around manhole on University place the protrusion is about 1 foot.

No. 29, November 13, 1906—Corner of West Thirteenth street and University place. Example of temporary repairs made early in July. Condition general south of Twenty-third street, where new high pressure water service is laid.

*Q.* Does that show the condition which existed in July?

*A.* It does. The condition was general throughout that entire section between Twenty-third and Fourteenth streets.

*Q.* This photograph shows a continuation of this condition that existed in July, according to your record?

*A.* Yes, sir. No. 30, November 13, 1906—West Nineteenth street, east from Sixth avenue. Temporary repairs made prior to July.

*Q.* Then does that photograph show a condition which existed in July and continued?

*A.* It does. No. 31, November 13, 1906—Sixth avenue, between Twenty-third and Twenty-fourth streets. Ruts along car tracks 8 inches deep, 2 feet wide and 30 feet long.

*Q.* Do your notes show whether that existed in July?

*A.* It was impracticable to identify any specific de-

fects along the car tracks, because they are shifting from day to day; there would be none to-day and to-morrow there would be a long stretch, and one breaks down into another, so it is impossible to identify them.

No. 32, November 13, 1906—Eighth avenue, Sixty-fourth to Sixty-fifth streets. About 150 feet long, from 8 to 12 feet wide. Same condition as in July.

No. 33, November 13, 1906—Corner Broadway and Columbus avenue. Break about 25 feet by 4 feet.

No. 34, November 13, 1906—Opposite Nos. 348 or 349 Central Park West. Cut 3 feet by 4 feet; same condition as in July.

*Q.* Does that show the continuation of the same condition?

*A.* Yes.

*Q.* When you say same condition, do you mean the same particular defect?

*A.* Yes. No. 35, November 13, 1906—Corner Manhattan avenue and 100th street. Same condition as in July. Repairs in progress between 100th and 101st streets November 12. Many minor depressions not repaired. No. 36, November 13, 1906—Corner Manhattan avenue and 101st street; 15 holes upon this intersection; general condition same as noted in July.

*Q.* Does that mean those 15 holes existed in July?

*A.* It means that the street was in ruinous condition. I cannot say the identical holes, but no repairs had been made anywhere in that stretch.

*Q.* Since July?

*A.* Since July or a long time previous. This photograph shows the general condition of the entire stretch. No. 37, November 13, 1906—Manhattan avenue, 101st street to 102d street; 95 holes from the north side of 101st street to north side of 102d street. Same general condition as in July.

No. 38, November 13, 1906—West 108th street, between Amsterdam avenue and Broadway. Hole 9 to 12

inches deep, and 43 holes in this block and a great number of minor inequalities. Similar condition in July.

*Q.* By similar condition do you mean that it was in as bad a state of repair in July?

*A.* The whole surface was in a general condition of disrepair. A great many large holes and very many minor inequalities running into each other, so it was difficult to locate them specifically.

No. 12A, April 2, 1907, shows the same locality, same block, West 108th street, between Amsterdam avenue and Broadway. Condition throughout the block very bad. In November 43 important holes were noted, with a great number of minor inequalities. Some of the worst holes have been patched up, but many remain. Compare No. 38.

*Q.* Then, Mr. De Berard, these two photographs, taken together with your notes made in July, show a continuous state of disrepair at this point?

*A.* They do.

*Q.* From July down to April 2 of this year?

*A.* Yes. No. 39, November 13, 1906—Convent avenue, 128th to 129th street. About 150 feet of pavement practically all gone; caused by a break in the water mains in February last. The Water Department repaired the mains and refilled the trench, but claim that the replacement of the pavement was the duty of the Bureau of Highways; the latter claims the pavement should be replaced by the Water Department. This is a good example of shifting of responsibility. There are many other deep and dangerous breaks on Convent avenue.

No. 19A, April 2, 1907—Shows the same location, Convent avenue, between 128th and 129th streets. Same condition as noted in July and November.

No. 40, November 14, 1906—Convent avenue, between 134th and 135th streets; No. 20A of April 2, 1907, shows

the same locality, Convent avenue, between 134th and 135th streets; same condition as noted in July and November.

*Q.* And these two photographs, as the two before, show a continuous condition of disrepair from July to April of this year?

*A.* The photographs, in connection with the record of July. No. 41, November 14, 1906—Opposite No. 565 West 183d street. Opposite No. 569 is another hole 8 by 10 feet; temporarily repaired by filling with gravel. Both holes existed in July.

No. 42, November 14, 1906—Bowery, between Bleecker and Houston streets. Ruts in the tracks. Similar conditions throughout the block.

*Q.* Did that condition exist in July?

*A.* That condition was general in July. I will say there that I saw Mr. Orin Root, the general manager of the Metropolitan Street Railway Company, and Mr. Dugan, the engineer in charge of maintenance. On their behalf I went to the Borough President and remonstrated about the obstacles that were put in the way of prompt repairs by the street railway companies of the defects they were responsible for. The result of it was the issuance of an order giving them a general permit to make repairs when it became necessary to take up a small section for the repairing of a loose joint, and that kind of thing.

*Q.* Giving whom the general permit?

*A.* The Metropolitan Street Railway Company. And I also took up with them the general question of properly repairing Park Row and the Bowery, and they had some dispute with the Borough President as to the kind of pavement to put down, and the upshot of it was a short time after that the entire strip was repaired.

No. 44, November 14, 1906—West Tenth street, west from Sixth avenue.

*Q.* Made in November?

*A.* That was made in November. That was due in a large part to the laying of the auxiliary water mains, but there were numerous breaks due to traffic also.

No. 45, November 14, 1906—West Tenth street, east of Greenwich avenue.

*Q.* That was made in November?

*A.* November. 7A, April 2, 1907—West Tenth street, east from Greenwich avenue, same condition as in November.

*Q.* Did those photographs show the same spot?

*A.* Same spot.

*Q.* Continuous condition of disrepair from November down to the present time?

*A.* Yes, the conditions are somewhat worse in April than in November. No. 46, November 14, 1906—Corner West Eleventh street, Greenwich and Seventh avenues, in bad condition in July. No. 8A, April 2, 1907—Corner West Eleventh street, Greenwich and Seventh avenues, condition as in November, also in bad condition in July.

*Q.* Those two photographs together with your notes of July show a continuous condition of disrepair from July down to the present time?

*A.* Yes.

*Q.* Down to the 2d of April?

*A.* Yes; due in part to the auxiliary water mains, but also a very bad condition of disrepair due to wear and tear.

No. 47, November 14, 1906—Seventh avenue, from Twenty-third to Twenty-second street, ridge 4 feet projecting about one foot through entire block.

No. 48, November 14, 1906—Corner Fifth avenue and 138th street.

*Q.* Showing what condition?

A. General tearing up due to installation of mains of some sort.

No. 49, November 14, 1906—West 137th street, west side of Seventh avenue; No. 22A of April 2, 1907, shows the same location with the condition unchanged since November.

*Q.* Have you a record of July showing that defect??

A. No.

*Q.* Then those two photographs show a continuous condition of disrepair from November down to the 2nd of April; is that right?

A. Yes. No. 50, November 14, 1906—West 135th street, west of Lenox avenues; similar condition in July; trench throughout the block on north side; of this, 50 feet east of Seventh avenue existed in July.

No. 17-A, April 2, 1907—West 135th street between Lenox and Seventh avenues; condition unchanged from July to November, 1906. Compare No. 50, November 14, 1906. Trench on the north side throughout most of the block shown in No. 18-A, existed in November; about 60 feet of the trench east of Seventh avenue was noted in July; it is still unrepaired.

*Q.* Then these two photographs Nos. 50 and 17 and 18-A show the same conditions existing in July and November and April?

A. There was a modification between July and November; only part of the trench existed in July, the remainder of it was made some time between July and November.

*Q.* Then you found the conditions worse in November than in July?

A. Worse in November than in July.

*Q.* How did it compare in April with November?

A. It was worse than either of the two preceding dates. The trench still remained, but there were numerous wear holes in the street, extending north across the street in some cases, and those had been considerably enlarged.

No. 51, November 14, 1906—East 126th street between Second and Third avenues; 15 surface cuts and one hole from No. 225 to 243; cuts existed in July. I made inquiry of three adjacent residents and they said to me that the cuts had been made in the summer of the previous year, 1905.

No. 21-A shows the same location, East 126th street between Second and Third avenues; the date of that is April 2nd; condition unchanged since November; same conditions recorded in July; neighbors say cuts were made in summer of 1905.

*Q.* Then these two photographs show a continuous condition of disrepair from July down to the 2nd of April?

*A.* With the statement that the cuts were made a year previous to that.

*Q.* Yes, but your record shows a continuous condition from July last to April of this year?

*A.* Yes. No. 52, West 141st street, corner Lenox avenue. Similar conditions in July. No. 23-A, of April 2nd, shows the same locality, 141st street and Lenox avenue; conditions unchanged since November.

No. 53, November 14, 1906—West 139th street, corner Lenox avenue, similar condition in July.

*Q.* Does that complete the photographs?

*A.* It completes the photographs.

Mr. MITCHEL—We offer those in evidence, Messrs. Commissioners.

Mr. LITTLETON—I am not entitled to ask anything, but I would like to know who took the photographs.

Mr. MITCHEL—Mr. DeBerard has testified he took the photographs.

The WITNESS—They were taken by a photographer under my direction and in my presence.



Mr. LITTLETON—That does not answer the question.

The WITNESS—George P. Hall & Son.

Mr. LITTLETON—What is the name of the man who took them?

Q. Further identify these photographs; they were taken under what conditions, under what conditions were these photographs taken?

A. They were taken by a firm of photographers employed by the Merchants' Association, under my direction. They sent an employee who made the photographs in my presence.

Q. That is, the views were taken in your presence?

A. Yes.

Q. Under what conditions?

A. I do not understand your question.

Q. I mean in what way were you making your notations of the streets when these photographs were taken in your presence?

A. I got an automobile and a chauffeur and a photographer and went out for the purpose of learning whether the conditions which existed in November still persisted in April, and took the photographs, the photographs were taken in my presence for that purpose.

Q. Do you know the name of the photographer who took them?

A. I do not.

Q. What firm did he represent?

A. George P. Hall & Son.

Q. Did you engage them to do this particular work?

A. Well, we engage them frequently when we have photographing to do.

Q. Had you on this occasion engaged them to do this particular work with you on these particular days?

A. I had, yes.

Q. This man was sent by that firm to do this work?

A. Yes.

Q. He was with you in the automobile?

A. Yes.

Q. And you say it was in your presence these photographs were taken?

A. Yes.

Q. Who selected the spots at which these photographs should be taken?

A. Well, sometimes the photographer did, sometimes we consulted in relation to it. I tried to get as nearly as practicable the same point of view as we had before; sometimes it was not practicable because of obstacles.

Q. I mean in the original case, was it you who picked out the spot at which you wished the photograph taken?

A. Yes.

Q. Was it at your request each time that the photograph was taken?

A. It was.

Q. Were those the conditions that obtained also in April?

A. They were.

Q. When the second set of photographs were taken?

A. Yes, sir.

Mr. MITCHEL—Will you receive these photographs in evidence?

Commissioner HERTLE—Yes.

The photographs referred to by the witness in his testimony were admitted in evidence and marked as follows:

No. 1 marked Exhibit No. 7.

No. 5-A marked Exhibit No. 8.

No. 2 marked Exhibit No. 9.

No. 3 marked Exhibit No. 10.

No. 4 marked Exhibit No. 11.

No. 5 marked Exhibit No. 12.

- No. 6 marked Exhibit No. 13.  
No. 7 marked Exhibit No. 14.  
No. 8 marked Exhibit No. 15.  
No. 9 marked Exhibit No. 16.  
No. 10 marked Exhibit No. 17.  
No. 11 marked Exhibit No. 18.  
No. 12 marked Exhibit No. 19.  
No. 13 marked Exhibit No. 20.  
No. 14 marked Exhibit No. 21.  
No. 1-A marked Exhibit No. 22.  
No. 2-A marked Exhibit No. 23.  
No. 15 marked Exhibit No. 24.  
No. 16 marked Exhibit No. 25.  
No. 17 marked Exhibit No. 26.  
No. 13-A marked Exhibit No. 27.  
No. 14-A marked Exhibit No. 28.  
No. 15-A marked Exhibit No. 29.  
No. 16-A marked Exhibit No. 30.  
No. 18 marked Exhibit No. 31.  
No. 19 marked Exhibit No. 32.  
No. 20-21 marked Exhibit No. 33.  
No. 4-A marked Exhibit No. 34.  
No. 22 marked Exhibit No. 35.  
No. 3-A marked Exhibit No. 36.  
No. 23 marked Exhibit No. 37.  
No. 24 marked Exhibit No. 38.  
No. 9-A marked Exhibit No. 39.  
No. 10-A marked Exhibit No. 40.  
No. 25 marked Exhibit No. 41.  
No. 26 marked Exhibit No. 42.  
No. 11-A marked Exhibit No. 43.  
No. 27 marked Exhibit No. 44.  
No. 28 marked Exhibit No. 45.  
No. 29 marked Exhibit No. 46.  
No. 30 marked Exhibit No. 47.  
No. 31 marked Exhibit No. 48.  
No. 32 marked Exhibit No. 49.

No. 33 marked Exhibit No. 50.  
 No. 34 marked Exhibit No. 51.  
 No. 35 marked Exhibit No. 52.  
 No. 36 marked Exhibit No. 53.  
 No. 37 marked Exhibit No. 54.  
 No. 38 marked Exhibit No. 55.  
 No. 12-A marked Exhibit No. 56.  
 No. 39 marked Exhibit No. 57.  
 No. 19-A marked Exhibit No. 58.  
 No. 20-A marked Exhibit No. 59.  
 No. 40 marked Exhibit No. 60.  
 No. 41 marked Exhibit No. 61.  
 No. 42 marked Exhibit No. 62.  
 No. 43 marked Exhibit No. 63.  
 No. 44 marked Exhibit No. 64.  
 No. 45 marked Exhibit No. 65.  
 No. 7-A marked Exhibit No. 66.  
 No. 46 marked Exhibit No. 67.  
 No. 8-A marked Exhibit No. 68.  
 No. 47 marked Exhibit No. 69.  
 No. 48 marked Exhibit No. 70.  
 No. 49 marked Exhibit No. 71.  
 No. 22-A marked Exhibit No. 72.  
 No. 50 marked Exhibit No. 73.  
 No. 18-A marked Exhibit No. 74.  
 No. 17-A marked Exhibit No. 75.  
 No. 51 marked Exhibit No. 76.  
 No. 21-A marked Exhibit No. 77.  
 No. 52 marked Exhibit No. 78.  
 No. 23-A marked Exhibit No. 79.  
 No. 53 marked Exhibit No. 80.

*Q.* Now, Mr. De Berard, were there five inspections altogether?

*A.* Five inspections altogether.

*Q.* As a result of those five inspections are you able to express an opinion as to the conditions of the pavements of this Borough in April as compared with their condition at the times of the former inspection?

A. I think that taking them as a whole they are in worse condition in April than I have ever seen them before. There are many places where defects formerly existed that have been repaired, but speaking broadly, covering the entire Borough, I think there is a much larger expanse of unrepaired pavements and of defects at the present time than there has been before at any time I have been making observations.

Q. Have you made a study of this question of pavements?

A. I have made a study to the extent that has been set forth here. I was instructed to take up the subject and give attention to it and examine fully into the physical conditions and the methods of operation of the Department, with a view to bringing about better conditions, if possible, and I have given a great deal of time and much thought and careful attention to the subject. I may say that I believe I probably could express an opinion on the subject.

Q. In connection with these inspections, did you also make a study of the system of the Bureau of Highways and the Department generally in the matter of the methods of restoration of pavements and inspection?

A. I did. I consulted with Mr. Ahearn and had a number of general conversations with him, and at his request I consulted with Mr. Dalton, with Superintendent Scannel, Chief Engineer Olney, Mr. Martin, Mr. Goodsell, Mr. Malohan, and the men in the Bureau of Incumbrances, together with several of the clerks to whom I was referred for minor details.

Q. Now, from that examination that you made are you able to say who in the Bureau or in the office had charge of the inspection of pavements?

A. The jurisdiction seemed to be divided. The assistant engineer, Martin, was specifically in charge of the maintenance of pavements, but he complained to me repeatedly about his inability to control the inspectors who

were supposed to be ostensibly under his charge; they were taken off by orders of the chief engineer or by order of the Superintendent of Highways without his knowledge, and it interfered with his routine and system to such an extent that he was unable to keep properly informed as to the condition of the pavements.

*Q.* Did you learn from him the system which he employed in inspecting the pavements?

*A.* I learned from him that there was no system that was worthy of the name of inspection, as regards maintenance, that practically there was little attempt in the Bureau to exercise control through the inspectors over the operations of the maintenance contractors.

*Q.* When you speak of maintenance, do you mean the current maintenance?

*A.* I mean both, I mean the contractors who were under contract to maintain pavements originally laid by them, and also contractors who had received a maintenance contract from the City to do whatever work they might be employed to do.

*Q.* Are you acquainted with the system employed by the Bureau in issuing orders to those companies to repair?

*A.* I have copies of the blank forms of orders that are sent to the companies in the case of making repairs, but that only applies to new work or to replacement of pavements that have been removed. The matter of making repairs to pavements that are under maintenance contracts seems to me a cumbersome procedure, with no systematic inspection of the pavements to know whether or not a specific stretch of pavement was in proper condition or whether it was the duty of the maintenance contractor to make repairs.

*Q.* When you say there is no systematic method of inspection, what do you mean?

*A.* I mean there is no periodical going over of the pavements by a given inspector to know whether any defects

exist and the reporting of those defects and the acting upon that report by the responsible engineers in such manner as to compel the responsible contractors to fix up the holes.

*Q.* When did you make the examination where you first found that lack of system which you have just described?

*A.* That was immediately after the inspection that I made in the spring of 1905. I made a pretty full study of the whole subject at that time, at the request of the Borough President, and with the co-operation of the chief engineer and the assistant engineer.

*Q.* When did you last make an examination into this particular question?

*A.* I made a number of visits to the Bureau of Highways and other Bureaus in the month of October, November and December.

*Q.* Of what year?

*A.* Of 1906.

*Q.* Did you at that time find a lack of system of inspection such as you have just described?

*A.* The lack of system was admitted to me by the assistant engineer in charge of it, who complained, as his predecessor had done, that he had not a sufficient number of inspectors, that he had not effective control of them, and consequently that he was without the information necessary to enable him to keep the reports up.

*Q.* Who is that assistant engineer?

*A.* Mr. Goodsell.

*Q.* Well, then, in what way does the office or Bureau get cognizant of the defects?

*A.* There are several ways in which they get imperfect cognizance. The engineers when they go about the streets presumably observe some of these things for themselves. There are a good many complaints made by citizens. These specific complaints as a rule are taken up and acted on with reasonable promptitude. Besides that,



the police department makes daily reports of dangerous holes which are sent to the Bureau of Highways. Whether they are disposed of in the Bureau of Highways in such a way as to make them available, I do not know.

*Q.* Well, do you mean, Mr. DeBerard, that your examination disclosed the fact that the Department relied upon that haphazard method of inspection, coupled with the police department reports?

*A.* That is my conviction, based upon the statements largely made to me by officials in that Department.

Mr. LITTLETON—I suppose I have been effectively excluded or I would say that no such evidence as that is received in the world, a man's conviction.

Mr. MITCHEL—I object to the interruption, Messrs. Commissioners, I think we must proceed in an orderly way.

Mr. LITTLETON—I say I have been so effectively excluded that I would not be permitted to say it, so I do not say it.

*Q.* (Question repeated.)

*A.* That is the conviction I reached, based upon the statements made to me by the officials in the Department who complained to me of the lack of efficiency and lack of control and the lack of method in the inspecting staff, and that they were powerless to better the conditions.

*Q.* What officials were those?

*A.* Mr. Martin.

*Q.* Who is Mr. Martin?

*A.* Mr. Wisner Martin was the assistant engineer in charge of the maintenance. Mr. Olney has made substantially similar statements, although not so broad.

*Q.* Mr. Olney has what position?

*A.* Chief engineer. Mr. Goodsell, the present assistant engineer, has stated to me—has made a statement almost identical in terms of that made by Mr. Martin.

Q. Then the testimony you have just given is based upon the statements made to you by those officials in the Bureau?

A. That is the only means I had of getting at the facts in view of lack of official power to examine the records minutely.

Q. Now as to inspection made after a defect is known to the Bureau; did you examine into that?

A. I made some inquiry as to that, but I am not prepared to make any definite statement as to just what the procedure is in that particular.

Q. Did you make a copy from the record of any reports made of any inspection of that kind?

A. A copy was prepared for me; Mr. Malohan, the cashier of the Department of Public Works, provided several blanks at my request, and Mr. Goodsell supplemented them and prepared a complete set of the blank forms in use in the Department in order that I might be able to trace the procedure. Upon inquiring of Mr. Malohan as to his relations to the subject of inspection in the case of plumbers' openings, I found that Mr. Malohan, as cashier, issued permits to plumbers to make openings, taking therefor a deposit on an arbitrary scale fixed by the Department. The conditions of the permit require the plumber as soon as he has refilled the excavation and temporarily replaced the pavement loosely to notify the Department in order that proper steps might be taken to permanently replace the pavement. I traced one example through and have the document.

Q. Did you examine the originals?

A. This was supplied to me by the chief of the Department. I made no further examination. I assumed that what they gave me would be accurate.

Q. Who was it that supplied it to you?

A. Mr. Malohan and Mr. Goodsell. The report that I examined for the purpose of tracing the movement of the permits was in the case of a permit dated June 25,

1906, to remove 12 square yards of asphalt for the purpose of making a sewer connection. The amount of the deposit was \$54. On the 7th of July an inspector of the cashier's department visited the site to learn whether or not the opening was in condition to have the pavement replaced.

*Q.* Was that fact noted on the slip?

*A.* It was noted on the slip in pencil. Perhaps I better give you the document.

*Q.* No.

*A.* The notation was to the effect that the hole was covered by B. M. I was informed that the letters B. M. stood for building materials. The permit issued by the Bureau of Incumbrances for placing building materials in the street expressly prohibits their being placed over any openings and the ordinances make it the duty of the Borough President in case openings are so obstructed to at once cause the removal of the obstructions; that was not done.

*Q.* That was noted on the slip?

*A.* No, but the subsequent proceedings showed it was not done. About three weeks later another visit was made by the inspector and another notation to the same effect was put upon the back of the permit. There was another visit in August, another in October, and the final notation on the 3rd of December is that the place was O. K. and ready for repaving, and on the 20th of December that permit reached the responsible engineer charged with the duty of replacing the pavement over that cut which had existed from the 25th of June, which was ready for repaving on the 7th of July, and which had been held up through slight inspection and neglect of the ordinance by the inspectors of the cashier's department until the 20th of December.

*Q.* Then, Mr. DeBerard, did that record show that condition was within the knowledge of the cashier's department from July until the 20th of December?

A. It was within the knowledge of the inspectors of the cashier's department under whose supervision the permit was.

Q. That is to say, the condition of building materials being superimposed upon the filled cut, is that correct?

A. That is correct.

MR. MITCHELL—I think, Messrs. Commissioners, at this point we will excuse this witness temporarily, subject to recall later.

THE WITNESS—I have something I would like to say about the condition of Eighth avenue.

MR. MITCHELL—We will take that up later.

MR. LITTLETON—I formally renew my request to examine the witness at length on the facts now.

COMMISSIONER HERTLE—We have decided that this morning.

MR. LITTLETON—I did not hear your Honor.

COMMISSIONER HERTLE—We decided that this morning.

MR. LITTLETON—I wanted it on record. You deny my request, that is the point.

ALLEN WADE GOW, called as a witness, being duly sworn, testified as follows:

*Examined by* MR. MITCHELL:

Q. What is your name?

A. Allen Wade Dow.

Q. What is your business, Mr. Dow?

A. A specialist on paving and the manufacture of bitumens.

Q. With an office where?

A. At 120 East Twenty-third street.

Q. How long have you been in this business?

A. For 18 years.

Q. Do you hold an engineering degree?

A. A Degree of Bachelor of Philosophy, Bachelor of Chemical Engineering.

Q. Where did you receive your degree?

A. At the School of Mines, Columbia College.

Q. What work in connection with pavements have you been engaged in since you finished your course?

A. From 1889 to 1894 I was engaged with a paving company as assistant chemist.

Q. What paving company?

A. Barber Asphalt Paving Company. I was working out on Long Island City in the latter part of my stay with them, and my work then consisted of experimenting with different paving mixtures on the streets; that is, making paving mixtures at the yard and sending them to the street and watching their behavior. I was then appointed inspector of asphalt and cement for the District of Columbia, Washington, D. C., in which I had entire supervision of all asphalt paving, and that position I held until June 1906.

Q. What were your duties in connection with that position?

A. I had entire charge of the manufacture of all the asphalt pavements and the laying of them.

Q. And with the laying of them?

A. And with the laying of them.

Q. Supervised that work yourself?

A. Supervised that work myself.

Q. Entirely?

A. By men working under me. Then while I held that position I also carried on a private practice of consulting specialist on paving for contractors and municipalities.

Q. And since your work in Washington what have you done?

A. Since then I have just engaged in my private practice.

*Q.* Which is?

*A.* A consulting specialist upon paving and the manufacture of bituminous products.

*Q.* Have you been retained by any other cities than New York?

*A.* Yes, I have worked for a great many.

*Q.* Will you name a few of the cities by which you have been consulted?

*A.* Baltimore, Chicago, Buffalo, Detroit, St. Louis, Pittsburg, Utica, Pueblo, Colo.; Port Huron, Mich.

*Q.* I think that will be enough.

*A.* There are several others, a number of others.

*Q.* What work was it you attended to for these cities?

*A.* Examined paving materials and reported on pavements.

*Q.* By reports on pavements, do you mean an examination of the condition of the pavements?

*A.* An examination of the condition of the pavements in some cases, yes. It was principally to see that the pavements were properly laid or that the materials the cities were using were of a proper character.

*Q.* Mr. Dow, have you made an examination of the pavements of this Borough at my request?

*A.* Yes, I have.

*Q.* To what extent have you made that examination?

*A.* During the past three weeks I made a few inspections, to study how the repair gangs were working and also to determine what was the cost of disintegration of the pavements.

*Q.* I am asking about an examination of the physical condition of the pavements at the present time. Have you made that examination?

*A.* I did that this morning on the lower east side of the city.

*Q.* On the lower east side only?

*A.* Yes, from Fourteenth street to the Brooklyn Bridge.

*Q.* Did you make a previous examination of the physical condition of certain streets before this morning?

*A.* Yes, I was telling you of that.

*Q.* In what locality was that?

*A.* I can tell you that off-hand.

*Q.* What locality, I ask?

*A.* Why, Thirty-second street and Fourth avenue, University place and Ninth avenue, Fifty-fourth street and Tenth avenue, Broadway from Seventy-second to Eighty-seventh street, Sixteenth street near Fifth avenue and Twenty-third street between Eighth avenue and Tenth avenue.

*Q.* What did you find as to the condition of the pavements of those streets as to repair or disrepair?

*A.* I would rather read these things from my notes.

*Q.* You may read from your notes. What I am asking you is the present physical condition of those streets.

*A.* Well, these streets were being repaired which I was looking at then. This was where I was following the repair gangs around and seeing how they were working.

*Q.* I asked you whether you made an inspection of those streets with a view of determining whether the pavements were or were not in good condition.

*A.* Where they were not in a good condition, but were being repaired at that time.

*Q.* Those are not the streets, then, that you examined for the purpose of making a physical examination of the present condition of the pavements?

*A.* No, they were not.

*Q.* That is all I am asking at the present time. What streets were those you examined with a view of determining the present physical condition of the pavements?

*A.* Practically every street from the northern end of Park Row to Fourteenth street, and from Fourth avenue to the East River.

*Q.* Well, will you describe the condition of those streets as you found it to be?



A. I found them, at least 60 per cent. of the asphalted streets, in most wretched condition.

Q. What do you mean by wretched condition?

A. I mean needing immediate repairs.

Q. Well, in what way did they need immediate repairs, will you describe their physical condition?

A. Why, the pavements were worn through so that in a great many cases there were holes three and four feet in diameter and two and three inches in depth; in other cases the holes were often as large as four and five inches in depth, really dangerous. The wearing surface of pavement was worn entirely away, excepting the granite block foundations.

Q. When you found these defects?

A. Yes.

Q. Can you estimate the percentage of blocks in which there were no defects in those streets that you examined?

A. It would be a liberal estimate to say 60 per cent. of the asphalt blocks that I examined needed repairs.

Q. Needed repairs?

A. Yes.

Q. Did you find in making this examination that in the case of any of these blocks the pavement was in a condition which made it dangerous to traffic?

A. In several cases, yes.

Q. In several cases?

A. In several cases they were very dangerous.

Q. Did you make notes of those cases?

A. There was only one I made in particular, and it was a site that has been photographed, and that is on Broome Street from Clinton to Norfolk Street. There was a trench put through the street there, and the granite blocks have been replaced to such a height above the original pavement that it is very nearly impossible for a wagon to get over them. It is no exaggeration to say they are a foot above the original pavement.

Q. From your experience in paving work, do you consider that the streets which you examined this morning

are in an ordinary state of repair such as would be maintained by an ordinary amount of supervision and work?

A. Well, they are not. I have never seen a city with streets in such miserable repair as the City of New York.

Q. Can you give in further detail the examination you made this morning?

A. I can give in detail the streets that I examined.

Q. Indicating in each instance whether the street was in repair or not?

A. That is, whether it was in very bad condition or not.

Q. Please do so.

A. I will first mention all that needed repair. These streets are all between First and Second avenues, beginning at Twenty-second street; Twenty-second street, Twenty-first street, Twentieth street, Nineteenth street, slight repair needed on Eighteenth, slight on Seventeenth, some on Sixteenth, a few on Thirteenth, very much in need of repair on Eleventh street; Fourth street extremely bad; Third street a few repairs; Second street a few repairs.

Now, between Second and Third avenue—Second street badly in need of repairs; Fourth street very badly in need of repairs; Eleventh street in need of repairs.

Between Avenue A and First avenue—Second street very badly in need of repairs; Third street needs some repairs; Fourth street needs repairs; Seventh street needs repairs; St. Mark's place needs a few repairs; Eleventh street needs a few repairs; Sixteenth street needs a few repairs.

Now, from Avenue A to Avenue B—Fourth street needs repairs badly; Fifth street needs some repairs; Seventh street is badly in need of repair; Eleventh street badly in need of repair; Fourteenth street has a bad cut through it that needs repairing; Sixteenth street needs repairs.

Now, I will take between Avenue B and Avenue C—Second street needs repairs badly; Third street needs repairs; Fourth street badly in need of repairs; Fifth street badly in need of repairs; a few repairs needed on Sixth street; a few repairs needed on Eighth street.

From Avenue C to Avenue D—Second street needs repairs; Third street needs repairs; Fourth street needs repairs; Fifth street is in very bad condition, needed repairing; Sixth street needs repairs; Seventh street needs repairs; Eleventh street quite bad, needing repairs.

Now, between Houston and Stanton street, going east—Would you like me to continue giving blocks like this, or shall I take three blocks at a time?

*Q.* Take them block by block.

*A.* Going east on Houston street, beginning at the Bowery—Christie street very badly in need of repairs; Eldridge street very badly in need of repairs; Allen street in most frightful condition; Orchard street needs repairs very badly; Ludlow street is in very bad condition; Essex street needs a few repairs; Norfolk street needs repairs; Suffolk street needs repairs very badly; Clinton street needs repairs very badly. Attorney street needs repairs; Ridge street needs repairs; Pitt street needs repairs very badly, one of the worst conditions I have seen as far as the disintegrated pavement goes.

Now, between Rivington and Stanton streets, beginning at the Bowery—Chrystie street needs repairs; Forsythe street needs repairs; Eldridge street needs repairs very badly; Allen street needs repairs; Orchard street needs repairs; Ludlow street needs repairs very badly; Norfolk street needs repairs very badly; Suffolk street needs repairs very badly; Clinton street needs repairs; Attorney street needs repairs; Ridge street needs repairs; Pitt street needs repairs; Willett street needs repairs; Sheriff street needs repairs; Columbia street needs repairs.

Now, between Delancey and Rivington streets, beginning at the Bowery—Chrystie street needs repairs; Forsythe street needs repairs; Eldridge street very badly in need of repairs; Allen street badly in need of repairs; Orchard street very badly in need of repairs; Ludlow street very badly in need of repairs. A few repairs needed on Essex street; repairing needed on Norfolk street; Suffolk street needs repairs; Clinton street needs repairs; Attorney street needs repairs; Ridge street needs repairs; Pitt street in very bad condition from cuts and in need of repairs from the disintegration of pavement; Willett street needs repairs; Sheriff street needs repairs; Columbia street needs repairs.

Rivington street needs repairs between Columbia and Lewis street.

Between Broome and Delancey street—Chrystie street needs repairs; Allen street needs repairs; Orchard street needs repairs badly; Ludlow street needs repairs badly. Norfolk street is in very bad condition from a cut put through it here; Clinton street is very badly in need of repairs; Pitt street is in need of repairs; Willett street needs repairs.

Broome street from Chrystie to Goerck street is in a most miserable condition. At the corner of Clinton or between Clinton and Norfolk street there is the most dangerous filling of a cut that I have ever seen. The stone blocks are at least a foot above the original height of the pavement and put back in a most careless manner.

Between Grand street and Broome street, east from the Bowery—Chrystie street needs repairs; Eldridge street needs repairs; Allen street needs repairs badly. I would like to make that, Eldridge street very badly in need of repairs. Ludlow street needs repairs.

Between Hester and Grand street, east of the Bowery, reading east—Chrystie street badly in need of re-

pairs; Forsyth street badly in need of repairs; Eldridge street very badly in need of repairs; Allen street is in very bad condition, needing repairs; Orchard street needs repairs; Ludlow street needing repairs; Essex street needing repairs; Suffolk street needs repairs.

Between Canal and Hester street, from the Bowery east—Chrystie street very badly in need of repairs; Forsythe street needs repairs badly; Allen street needs repairs badly; Orchard street needs repairs; Ludlow street needs repairs badly.

Hester street from Ludlow to Division is very much in need of repairs; Division between Jefferson and Clinton is badly in need of repairs; Rutgers street between East Broadway and Henry street is very badly in need of repairs; Henry street between Pike and Rutgers street is very badly in need of repairs; Market street between Madison and Cherry is very badly in need of repairs; Montgomery street needs a few repairs between East Broadway and Cherry street; Jackson street needs repairs between Grand and Monroe street; Henry street needs repairs badly on account of a large cut between Scammell street and Jackson street; Mott street from Chatham to Hester street is in most frightful condition; Bayard street, between Mulberry and Elizabeth street is in very bad condition; Mulberry street from Bayard to Prince street is in very bad condition, one of the worst conditions that I found. Mulberry from Prince street to Houston street needs considerable repairs; Mulberry street from Houston to Bleecker street is very badly in need of repairs; Bleecker street is very badly in need of repairs; Bleecker street from Mulberry to the Bowery is very badly in need of repairs. I believe I have covered the ground.

Q. Now, Mr. Dow, was the condition of the pavements that you found in this section ordinary or extraordinary?

A. They are extraordinary. I have made no note of

some streets where they have had one or two small holes in them, not considering that sufficient cause for repairs. The streets enumerated are those that have holes at least ten inches and more than two feet in diameter, and the pavement worn right through to the stone block foundation. Where I have said very badly in need of repairs—well, there is not in some cases half of the pavement left in the street.

*Q.* Can you state from your knowledge on the subject and your examination this morning whether the holes are in a measure due to the wear and tear of the winter or whether they are old holes of long duration?

*A.* That I cannot say, no.

*Q.* Can you state what proportion of the holes, of the defects that you found, are due to wear and tear and what portion to other causes?

*A.* In all cases where I said the pavements needed repairs, excepting where I mentioned the cause, the repairs were necessary on account of the wearing away of the wearing surface of the pavement from ordinary wear and tear. The defects appeared to be due to the bad condition of the foundation, the sinking and lack of rigidity of the stone block.

*Q.* Mr. Dow, what is the best season of the year for making repairs to asphalt pavement?

*A.* Well, any time during warm weather.

*Q.* By warm weather, what do you mean?

*A.* When the thermometer is above 40 degrees.

*Q.* For how many weeks past do you consider that the weather has been suited for making of asphalt repairs?

*A.* It has been such a variable season that it would be rather hard to say that, because there have been some days within the past month that it would not be fit to make repairs on, but I would say the majority of days during the last month repairs could easily have been made.

*Q.* From the number of defects that you saw in those pavements this morning, will you please say whether or not in your opinion the time during which we have had

weather suited for repairs of asphalt pavement was sufficient to put those pavements in a state of repair?

A. That would depend entirely on the force working at it. It would take a tremendous force to put all the pavement in repair that I have seen out of repair this morning; working for a month, it might take something like thirty gangs of men working for a month.

Q. What other causes, in your opinion, other than the stone foundation, have caused these holes?

A. The defects from the stone foundation are so great that it is difficult to say that it was caused by any other cause than that. The pavements were there such a short time on such a poor foundation that other defects haven't had time to develop.

Q. Is it ordinary for a pavement to wear out in a short time over that foundation?

A. It is an ordinary thing.

Q. When a pavement is built over a foundation of that kind, is it necessary to maintain a closer system of inspection than over other foundation?

A. Naturally, as the pavements wear out more rapidly.

Q. An adequate system of inspection then would require frequent inspection of that kind of pavement?

A. Yes.

Q. Would it require systematic inspection of that kind of paving?

A. All pavements would require a systematic system of inspection.

Q. Mr. Dow, you have not completed your examination of the pavements of the Borough, have you, the physical condition of the pavements?

A. No, I have not.

Q. Your inspection has only covered that limited area that you describe?

A. Yes, a few streets above Fourteenth street, but practically every street from Fourteenth street down to the north end of Park row, and between Fourth avenue and the East river.



Q. In your opinion, would it be possible by some action on the part of the authorities in charge to keep the pavements which you inspected this morning in a state of repair continuously?

A. Well, that would be a question that I could not answer offhand without a more thorough study of the subject. It depends entirely on the rapidity with which the pavements are going to pieces. It looks to me as though they were going to pieces rapidly; but not only that, but that the repairs themselves would not last long.

Q. Is not that due to the fact that they are improperly constructed?

A. Improper construction of the pavement, yes, and improper base under the pavement.

Q. Improperly laid?

A. Improperly laid and not suitable to the conditions to which they are subjected.

Mr. MITCHEL—If it please the Commission I think we will excuse this witness at this point, subject to recalling him later.

Mr. LITTLETON—I renew my request to examine the witness on the facts.

Commissioner HERTLE—Denied.

Mr. MITCHEL—For the purpose of saving time, we are very willing that that request should be regarded in the case of each witness as on the record.

Mr. LITTLETON—It does not take much time.

JAMES W. HOWARD, called as a witness, being duly sworn, testified as follows:

*Examined by Mr. MITCHEL:*

Q. Mr. Howard, what is your business?

A. I am consulting engineer on roads, streets and pavements.

*Q.* Where did you get your technical education, Mr. Howard?

*A.* After finishing getting my basic education, just the technical part at France, Switzerland, Goettingen University in Germany, I also graduated from the Troy Polytechnic or Rensselaer Polytechnic Institute, as civil engineer, Troy, New York.

*Q.* At what time did you begin the practice of your profession?

*A.* I practiced at intervals during my study, and I began to work at engineering about 1881.

*Q.* Have you made a special study of any branch of engineering?

*A.* Pavements and streets of cities, and roads, paving material.

*Q.* Will you state what experience you have had in that work, Mr. Howard?

*A.* In one way and another for twenty-six years. Although an engineer, I began at the bottom as a foreman, grading streets, laying concrete foundations, laying the different kinds of pavement surfaces, granite, asphalt, brick, wood, etc., in different cities, and sometimes serving cities, sometimes serving other clients who come and go. I have a paving test laboratory for testing paving material and pavements themselves; I mean by pavements themselves, an asphalt pavement, for instance, is a composition pavement, and each portion of it is tested first and then the whole thing by synthesis, put together and tested again. I have done what an engineer would do making a specialty of pavements.

*Q.* Have you been engaged in laying the pavements themselves?

*A.* I have.

*Q.* Have you been engaged in connection with the composition of the material that goes into the making of a pavement?

*A.* Yes.

*Q.* Have you been retained at any time as consulting engineer by any cities for this work?

*A.* If you mean retained, you mean employed by?

*Q.* Yes.

*A.* Yes, sir; a good many cities.

*Q.* What cities?

*A.* I accept no retainer; I work for fees as I go along. Lawyers get retainers.

*Q.* Will you name the cities for which you have done this work, Mr. Howard, stating as far as you can in each instance what work you did?

*A.* The one I have just finished is the City of Philadelphia, Department of Public Works, writing a review of their past specifications, showing wherein in my judgment they were defective, what should be done to make them effective, and then preparing new specifications for the Department of Public Works of Philadelphia.

*Q.* What other city?

*A.* I have advised or assisted on the work for cities, among which I can name geographically, Boston, New York City at intervals; Portland, Oregon; San Francisco directly and indirectly at intervals; New Orleans, St. Louis, Chicago—I have forgotten them in their order, but I can go on naming a dozen more:

*Q.* Have you in the course of your work for those cities been engaged in the supervising or laying of their pavements?

*A.* Selecting materials and laying pavements. Sometimes the city has the material in the neighborhood, as in Scranton, and have those materials examined and see what kind of pavements can be made, and then I advise them. Like Arkansas, with its asphalt deposits there, I show how to use it and start its use in the city, and after men are trained I leave, unless called back for something new.

*Q.* Have you had occasion in connection with that work to inspect the pavements as to their physical condition?

A. I have inspected pavements during their construction and subsequent to their construction in a great many cities, fifteen or sixteen on this side and several in Europe, because in several respects in Europe they are better than we, and in some respects we are better than they.

Q. Have you at my request made a personal inspection of the condition of the pavements of this Borough?

A. Yes, certain sections; but not all the Borough of Manhattan.

Q. Will you name the sections which you have examined at my request?

A. I have examined, but have not completed all. What I have examined and finished would be covered by the following general zones: From Twenty-third street north to Fifty-ninth street, from the Hudson River to East River, from Fifty-ninth street northward to the Harlem River, from the north portion of Central Park northward to Harlem.

Q. When you say Fifty-ninth street north to the Harlem River, what do you mean?

A. On the east side of Central Park.

Q. Exclusive of the western part?

A. I have examined the entire city in general zones, except that portion lying west of Central park from about 112th street down to Fifty-ninth street. That I was at to-day when you called me here.

Q. Mr. Howard, will you first state generally what you found to be the condition of the pavements which you inspected?

A. You mean what I found physically?

Q. Yes, physically.

A. What is popularly termed holes in them, a large number of holes in various kinds of pavements. In stone pavements there were seldom holes, just wavy, neglected, a condition of slight repairs.

Q. We will take up the asphalt.

A. In asphalt block pavements, some in splendid condition, a few with holes. In sheet asphalt pavement,

large numbers of streets by streets - I now mean what the public would call a block, a section of a street between one street and another, the asphalt pavements in those cases largely full of holes, and some in good shape.

*Q.* Did you find generally many defects of that kind or few?

*A.* About 50 per cent. of the areas of pavements which I have examined of all kinds north of Twenty-third street is full of holes, depressions, breaks, disintegrated spots.

*Q.* Well, now, taking up those zones and beginning at the north, will you as far as possible describe the conditions that you found?

*A.* First avenue is an example of the condition of a long list of streets that I can enumerate. Beginning at Twenty-third street, running north to, say, Sixtieth street, there are from thirty to one hundred holes in each block lying on the right and left of the street as you go northward. The centre is paved with stone between the car tracks; but it is in fair condition for that kind of stone pavement. There are points where wagons could not cross First avenue, would have to make a detour to go around big holes next to car tracks. There are other points where you will notice the wagons winding in and out to get along without jerking on the horses' collars or the liability of breaking a spring of the wagon or throwing the driver off, especially if he is a little tired toward evening. I have seen them thrown off.

*Q.* The condition you have just described applies to First avenue?

*A.* First avenue, yes, sir, from Twenty-second street to 109th street, I think, except a few spots that have been repaired or are now being repaired or were being repaired the day I was there, perhaps three blocks.

*Q.* Can you state, from your own experience and knowledge of this subject, what causes those holes, or what the defects are due to?

A. Assuming the pavement to be finished, I will state from then the causes. Slight uneven surface causes the wagons to bump the least little bit, and the wearing is then induced by the wheels of vehicles and carried on by the wheels of vehicles. The horses' shoes wear it. When a small spot is made in the composition asphalt pavement, as on First avenue and generally over this city, a little water lies in it, and with certain kinds of asphalt slightly softens the mixture; other asphalt compositions are not so easily softened. The traffic beating in that hole soon has a deep hole, the wagon bumps on, skips a little space and starts another hole. The holes I have seen have been made from the wear of wagons and from the action of the elements; by elements, I mean water and the snow and the freezing. When water stands in a hole, the kind of binder used here in Manhattan, loose and open, enables the water to permeate and thus produce rotting of the pavement. The traffic you have crushes the asphalt into the binder stone below, and it wears all the faster.

Q. Is it your opinion that the greater number of these holes on First avenue that you have noted are due to the wear and tear?

A. I think the first cause is wear and tear of traffic, but it having been left for long intervals, the elements or the water has done more damage than traffic and is doing more damage than traffic to-day, because traffic has to keep off that avenue, except some few people, of course, pass along.

Mr. MITCHEL—If it please the Commission, I see we have reached the hour of adjournment. Before taking this up in detail, I think we better adjourn.

Adjourned to April 19, 1907, at 10:30 A. M.

NEW YORK, April 19, 1907.

Met pursuant to adjournment.

Present—HON. JOHN C. HERTLE and GEORGE C. VON SKAL, Commissioners of Accounts; and Mr. MITCHEL, Mr. BRUERE and Mr. LITTLETON.

Continuation of the examination of JAMES W. HOWARD:

By Mr. MITCHEL:

Q. Mr. Howard, you testified yesterday as to the condition of Second avenue.

A. First avenue.

Q. Will you again describe that condition as you found it?

A. The asphalt pavement on both sides of the street, on what is generally called the cartways to distinguish them from the street car track stone in the middle, is encumbered with holes. In many places the holes touch each other in chains. There are places where the foundations are exposed on areas ten to twenty feet square. At some places the foundation stone below has been forced down by traffic of several years directly upon it, the surface having gone during that time. The pavement is worn badly over its entire surface, reducing its thickness to possibly half of what it originally was, in addition to these holes. The entire avenue would need resurfacing under a proper maintenance, which I would regard as a contract for fifteen years. In other words, a pavement laid under a guarantee of fifteen years, to be maintained in constant good order, would have to be constantly repaired, and then small spots would not become as large as the holes there, and at least once during the fifteen years the entire surface would have to be replaced.

Mr. MITCHEL—Messrs. Commissioners, in order to release Mr. Loudoun, who has something to attend to, will you call Mr. Loudoun to the stand, excusing Mr. Howard for the moment?



W. D. LOUDOUN, called as a witness, being duly sworn,  
testified as follows:

*Examined by Mr. MITCHEL:*

Q. Mr. Loudoun, what is your business?

A. Chief examiner in the office of the Commissioner of Accounts.

Q. In the performance of your duties have you become familiar with the system and the methods of the Bureau of Highways?

A. I have, yes, sir.

Q. Can you state whether the Bureau of Highways has an official record of paving contracts that have been let for the borough?

A. They have a copy of the original contracts that are filed with the Finance Department.

Q. Does the bureau publish, or has it ever published, an official record of those contracts?

A. They have published at times a book giving in detail asphalt contracts let for repaving.

Q. Does that cover asphalt block?

A. That covers both asphalt and block.

Q. (Handing book) I show you this publication. Is that a copy of that record?

A. That is the book. It was published by that department.

Q. Did you procure that book at my request?

A. I did.

Q. Where did you procure it, Mr. Loudoun?

A. I procured it from Mr. McManus, clerk of the Bureau of Highways.

Q. Do you know that that is a copy of the official record?

A. It is so considered by them.

Q. Did Mr. McManus so state to you?

A. He so stated to me. Several of the clerks have a book like that.

Mr. MITCHEL—Messrs. Commissioners, I offer that in evidence and ask you now to excuse the witness.

The book was admitted in evidence and marked "Exhibit No. 81, April 19, 1907."

JAMES W. HOWARD, recalled for further examination, testified as follows:

*Examined by Mr. MITCHEL:*

*Q.* Mr. Howard, to what proportion of First avenue does what you have just told us apply?

*A.* A little more than half of the avenue could be repaired by thin patches or by patches. The other half would remain a thin asphalt pavement in its present condition.

*Q.* Between what streets do these conditions prevail?

*A.* Of the portion I examined, from Twenty-second street to 109th street, with the exception of three blocks, which have been slightly patched lately.

*Q.* Did you examine the avenue above 109th street?

*A.* I did not.

Mr. MITCHEL—Messrs. Commissioners, I desire to read in evidence from this exhibit—

The WITNESS—I might have gone on it, but I do not know that I examined it.

Mr. MITCHEL—I desire to read in evidence from Exhibit No. 81, pages 20 and 21, the following entries:

Mr. LITTLETON—What is the exhibit?

Mr. MITCHELL—A record of the asphalted streets and the contracts. On page 20 is the following entry:

First avenue, from Twentieth to north side Twenty-sixth street, Warren-Scharf Company, the date of

the acceptance of the contract August 30, 1897, the end of maintenance August 30, 1912, fifteen years' maintenance.

First avenue, from Twentieth to Twenty-eighth street, Barber Company, May 25, 1896, date of acceptance, May 25, 1911, end of maintenance.

First avenue, from south side Twenty-eighth to 120 feet 6 inches north of Thirty-second street, west side and east side, 37 feet 6 inches north of Thirty-second street, Atlantic Alcatraz Company, June 24, 1897, date of acceptance, June 24, 1902, date of end of maintenance.

First avenue, west side, from 120 feet 6 inches north of Thirty-second to 70 feet south of Thirty-fifth street, Barber Company, September 4, 1897, date of acceptance, September 4, 1902, date of end of maintenance.

First avenue, east side, from 37 feet 6 inches north of Thirty-second street to south side Thirty-fifth street, Barber Company, September 4, 1897, date of acceptance, September 4, 1902, date of end of maintenance.

First avenue, west side, from 70 feet south of Thirty-fifth street to 69 feet south of Thirty-sixth street, Warren-Scharf Company, August 30, 1897, date of acceptance, August 30, 1912, end of maintenance.

First avenue, east side, from south side Thirty-fifth street to 140 feet south of Thirty-sixth street, Warren-Scharf Company, date of acceptance August 30, 1897, date of end of maintenance August 30, 1912.

First avenue, east side, from 140 feet south of Thirty-sixth street and west side, from 69 feet

south of Thirty-sixth to south side of Thirty-sixth street, Barber Company, date of acceptance September 4, 1897, date of end of maintenance September 4, 1902.

There appear here, and I draw to your attention, seventeen contracts in addition to those already read, of which fifteen expire as to guarantee of maintenance in 1912, and the other two in 1908. I have made a mistake in reading that. There are only fifteen expiring in 1912. The last two apply to First street and I mistook it for First avenue. These contracts cover First avenue, from the south side of Thirty-sixth street to the south side of 109th street.

*Q.* Mr. Howard, did you inspect other pavements than that on First avenue in the course of your work?

*A.* I finished inspecting everything north of Twenty-third street and a great deal below it.

*Q.* You said yesterday that you had inspected——

*A.* I finished that work yesterday afternoon and evening.

*Q.* You finished the work yesterday afternoon and evening?

*A.* No, yesterday morning, afternoon and evening.

*Q.* What section of the city was it you covered yesterday morning, afternoon and evening.

*A.* I went to specific locations to see how repairs were made, as follows: Twenty-first street on the north side of Gramercy Park, Twentieth street on the south side, and Gramercy Park East and West—I do not know whether that is the legal name of those streets—Twenty-first street, between Fifth and Sixth avenues. These were the particular ones I went to. There were others I took notes on in my book as to condition of pavements in that general section.

*Q.* You testified yesterday that you had practically covered the pavements of the borough with the exception of those at the west of Central Park.

A. Pavements of the borough north of West Twenty-third street, and quite a number north from Brooklyn Bridge up to Fourteenth street.

Q. Have you inspected those west of Central Park yet?

A. Finished that yesterday morning early.

Q. What condition did you find as to the pavements in those sections?

A. West of Central Park, in the wealthy neighborhood, in very fair shape. Eighth avenue, which at that place is called Central Park West, in excellent shape, a few little repairs here and there, covered by dust, but the wind blew, and I could see that they had been there for some two months or so. That is the best section of the city I have examined.

Q. What as to the other sections?

A. The worst section is on the west side of Central Park——

Q. You said on the west side?

A. On the east side of Central Park, especially toward the poor quarters and tenements and down towards Cherry, that is, on Cherry, Market, Roosevelt streets, dreadful condition, I mean full of holes and unrepaired.

Q. What as to the north section of the East Side?

A. A good many open lots up there that the goats were on.

Q. What as to the pavements?

A. Fair shape, except here and there a street in very bad shape, like 106th street. As to the others, I would have to look at my notes. I have seen so many hundred streets I cannot carry them in my mind.

Q. What as to the pavements in the north of the West Side?

A. Some of the older pavements are in very bad shape. Whether they are under repair contracts or maintenance contracts up there I do not know, but not many of them in bad shape in that section.

*Q.* What as to the pavements on the lower West Side?

*A.* From Fifty-ninth street down to where the named streets begin in very bad condition as to repair. From there down the pavements become granite and other things; some are uneven and here and there in need of repair.

*Q.* Are you able to form an estimate as to the proportion of the pavements which you examined which are in repair?

*A.* Excluding what I examined west of Central Park yesterday, I should say fifty-one per cent. I kept a record of the distances covered, and including that which I examined yesterday, which was in general better condition than the others, it might bring it down to 48 or 49 per cent.

*Q.* You mean 48 or 49 per cent. is out of repair?

*A.* Out of repair, full of holes and sadly in need of repairs, of the pavements I examined.

*Q.* Did you make any detailed notes of your examinations?

*A.* I took notes block by block, street to street, as I went along, and made a detailed record, not complete, but reasonably complete, with specific spots noted.

*Q.* Have you those notes with you?

*A.* I also recorded it by colorations on the map. I have the notes with me, but the map I have not finished yet.

*Q.* Will you give us the result of that inspection?

*A.* You mean some of the streets?

*Q.* Yes, some of the streets you examined, beginning with First avenue at the south, where did you begin your inspection?

*A.* Twenty-second street.

*Q.* How did you proceed?

*A.* Northward.

*Q.* Will you give us the result of your inspection?

*A.* The entire First avenue I have described, and unless asked, I will not give it again. The streets on the

right or east of First avenue, out of repair, full of holes——

*Q.* When you say street, do you mean city block?

*A.* I mean the single block running to the east from First avenue. Of course, I do that for brevity. The street would be the whole thing across the city.

*Q.* Continue.

*A.* I will use the word block in answering. The pavements on the following blocks, extending eastward from First avenue, are in bad shape as to repair; they need repairs and are full of holes: Twenty-eighth street, Fifty-sixth street, Sixtieth street; that is all there are. Most of those streets run right into the river quick. The conditions are such that the pavements are all gone and I omitted to look at such places. The blocks lying on the west of First avenue which are out of repair are Twenty-eighth street, Twenty-ninth street, Thirtieth street, Thirty-first street, Thirty-second street, Thirty-third street, Thirty-sixth, Thirty-seventh, Fortieth, Forty-sixth, Forty-seventh, Forty-eighth, Forty-ninth, Fifty-third, Fifty-fourth, Fifty-sixth, Fifty-seventh, Fifty-eighth, Sixtieth, Sixty-seventh, Seventy-first, Ninety-second, 108th, 115th, that block I examined when going down Second avenue, but for lucidity I put it in as seen from First avenue, not from Second avenue. That is all on the west of First avenue.

*Q.* Take Second avenue, Mr. Howard, the blocks lying to the west.

*A.* Second avenue, it is particularly out of repair at the following points: Twenty-second to Twenty-third street—did I understand you wanted that avenue?

*Q.* Will you give us Second avenue as to its own condition first? Later you may give us the blocks to the west.

*A.* Second avenue, from Seventy-third to Eighty-second street. The following are blocks from the west, beginning at Second avenue which are out of good condi-



tion: Twenty-fourth, Twenty-seventh, Twenty-ninth, Thirtieth, Thirty-first, Thirty-second, Thirty-third, Thirty-ninth, Fifty-seventh, Fifty-eighth, Sixtieth, Sixty-second, Sixty-third, Seventy-first, 109th, 111th, 115th, 116th, 117th, 118th, 119th and 122d.

*Q.* Mr. Howard, take Third avenue, the blocks lying to the west.

*A.* The following are the blocks out of order lying west of Third avenue: Twenty-ninth street, Thirty-second, Forty-second, Seventy-third, Eighty-fifth. That is all I found in the zone along there that I examined on that avenue.

*Q.* To what avenue did you next go?

*A.* Lexington, the next one west of Third.

*Q.* Describe that condition.

*A.* Lexington avenue has serious holes at intervals, but not such short intervals as on First avenue, and sadly needed repairs.

*Q.* Where?

*A.* From Forty-second to Forty-ninth.

*Q.* Is that the only section you examined?

*A.* That is the only section I examined on Lexington avenue, except where I crossed it uptown at a few points. At those points I found nothing wrong.

*Q.* What avenue did you go to next?

*A.* I cannot tell just the order in which I went to them unless I go to my notes, which would take very long.

*Q.* We will take the next avenue.

*A.* I can tell the avenues I examined, and if you want to know just what date and hour I have it all recorded.

*Q.* Take up the next one in order on the map that you examined.

*A.* Park avenue, in Harlem, which is in need of repair between a little north of Seventy-second street—I mean a little north of 123d street to just short of 127th street.

*Q.* Did you examine this avenue at any other points?

*A.* Yes, at one or two points, the place where I acted

as foreman on the work and otherwise was connected with the laying of the pavement, down to Thirty-third street.

*Q.* What did you find there?

*A.* A few small holes at different points, due to wear at the corners, but it was in general good condition. That pavement has but very little traffic, the opening for the New York Central Railroad being through there at that point.

*Q.* What avenue did you take up next?

*A.* I didn't take it up next, but the next one to the west as I am reading from the map——

*Q.* Take that up.

*A.* Is Seventh avenue.

*Q.* Will you describe what you found there?

*A.* It is in bad shape, with holes and worn and decayed spots between Twenty-fourth street and Forty-second street. One section should not be criticised, and that is where the new Pennsylvania depot is going in; everything is broken up there, not because of the pavement, of course. One block is in very fair shape, from Thirty-sixth to Thirty-seventh street.

*Q.* As to the rest, what was the condition?

*A.* Fair, with little holes, which if attended to promptly, would not become large ones, but no serious holes. To the east and west of that I examined as I went through.

*Q.* Will you describe their condition, please?

*A.* The blocks lying east of Seventh avenue badly in need of repair are Twenty-fourth street, Twenty-sixth, Twenty-ninth, Thirtieth, the first half of the block of Thirty-sixth street in towards Broadway is in good shape; Forty-second street clear across the city every time I crossed it east and west was in bad shape, and Forty-second street here, east of Seventh avenue is in bad shape; Forty-sixth, Fifty-seventh, Fifty-ninth street is in fair shape one block east of Seventh avenue, but in very bad shape between Sixth and Fifth avenue, except the

easterly end must not be criticised; they are building a big hotel, which would necessarily break up the pavement on account of the hotel.

*Q.* What about the blocks to the west of Seventh avenue?

*A.* The following need repairs: Twenty-fourth street, Twenty-seventh, Thirtieth—I ask that that be stricken out, as I omitted one. Beginning over again, Twenty-fourth, Twenty-sixth, Twenty-seventh, a short portion on Twenty-ninth. I skip, now, the area of the Pennsylvania Railroad. Thirty-fifth street—these are the blocks west of Seventh avenue out of repair—a portion of Thirty-sixth, Forty-second street, the whole block; Fifty-second, part of Fifty-seventh, being that portion between Broadway and Eighth avenue, not the portion between Broadway and Seventh avenue.

*Q.* What avenue did you next take up, Mr. Howard?

*A.* Eighth avenue.

*Q.* Describe what you found there.

*A.* I examined that, the blocks on the west side of that avenue, the following being in need of repairs, full of holes: Twenty-fourth, Twenty-fifth, Twenty-seventh, Twenty-eighth, Twenty-ninth, skipping the Pennsylvania section, the depot section; Thirty-seventh, Fortieth, Forty-second. That ends those on the west of Eighth avenue. Then I came down Ninth avenue.

*Q.* Will you describe what you found on Ninth avenue, please.

*A.* Ninth avenue itself I did not examine as to its pavement, except its general uneven condition, and I have no criticism to make on Ninth avenue itself, but as to the streets running west from it, the following blocks: Twenty-fifth, Twenty-seventh, Twenty-eighth, Thirty-seventh, Thirty-eighth, Fortieth, Forty-second. Now, I have not finished mapping the rest, and I will have to take up my notes from now on.

*Q.* Please do so.

*A.* This is still Ninth avenue. I made a second exam-

ination of Ninth avenue, from Twenty-fourth street up. I found either in addition to or duplicating what I already have stated as follows:

*Q.* Will you begin, please, from the point where you stopped on the map and continue northward from that point?

*A.* Continuing on the blocks running west from Ninth avenue: Forty-seventh, Fiftieth, Fifty-sixth. The avenue changes its name at Fifty-ninth street and becomes Columbus avenue. From there on to Seventy-first street, one block west, and Seventy-first street, one block east, has holes and needs repairs, and the following: Seventy-third, one block west from Columbus, and Seventy-fifth, one block east; Ninety-sixth, one block west; 106th street, one block east, and one block west from Columbus.

*Q.* What was the next avenue you examined, Mr. Howard?

*A.* I could continue this clear on to the Harlem River, you know. I am stopping now about at the north of Central Park.

*Q.* Did you examine the section directly north to the Harlem River?

*A.* Yes, sir, and have my notes and maps. I can state that I am preparing a list for you complete.

*Q.* Continue the next avenue you mapped.

*A.* Tenth avenue. The following streets or blocks for one block on the east are out of repair, east of Tenth avenue: Twenty-fifth, Twenty-sixth, Twenty-seventh, Twenty-eighth, Twenty-ninth, Thirtieth, Thirty-ninth, Forty-first, Forty-sixth, Forty-seventh, Fifty-first, Fifty-seventh, Sixtieth, Sixty-eighth. About there it changes its name to Amsterdam avenue. The following on the east of Amsterdam avenue, single blocks, are in need of repairs, have holes and other defects: Seventy-first, Seventy-fifth, Eighty-seventh, 102d has just been repaired; it is in order; 106th needs repairs; 112th was being repaired when I passed—was being put in order. On the west side of Tenth avenue the following have holes and

need repairs, each being single blocks, the following streets: Thirtieth, Thirty-seventh, Thirty-eighth, Thirty-ninth, Forty-fourth, Forty-seventh, Forty-eighth, Fiftieth, Fifty-first, Fifty-second, Fifty-fifth. The name changes to Amsterdam, and following are the single blocks west of Amsterdam avenue needing repairs: Lighty-fourth, 106th, 107th; 107th street is an asphalt pavement, not sheet asphalt pavement.

*Q.* Did you examine any avenue west of Tenth avenue, Mr. Howard?

*A.* The next is a large street in Harlem—it was not an avenue—and Manhattan street, and a few in the neighborhood, but not the avenues up in there.

*Q.* What did you find as to that?

*A.* Lawrence street is in a very bad shape; it is a sample of several private blocks in and through that district in bad shape.

*Q.* Now, Mr. Howard, were the streets which you named the only ones you inspected?

*A.* West End avenue, I did look at that, and it is in very bad shape, coming downtown.

*Q.* Were the streets which you have just named the only ones which you inspected?

*A.* No, they are possibly sixty or eighty per cent. of what I examined and found bad, but they are not the only streets I examined.

*Q.* What did you find as to the general condition of the other streets which you examined?

*A.* As to which kind of pavement?

*Q.* Asphalt pavement or asphalt block.

*A.* They needed repairs when I examined them; I haven't said anything about them to date. The asphalt pavements needed slight general repairs everywhere, as a stitch in time to save nine, but these are the places most in need of repairs, in addition to some streets that I have not given, especially down in the poor district on the south east side.

*Q.* Taking the streets you have named, can you state from your experience to what causes those defects were due?

*A.* Wear of traffic, action of the elements, possibly once in a while a little fire. I looked carefully to see if I could see anything to indicate that a house had been on fire or any other fire. The automobile grease injures a little bit on the surface, but does not make holes, slight dirt afterwards absorbing the grease if it is not excessive, but they start the holes. But the holes I have seen are due to wear and tear of the pavement in its ordinary use upon a street of the city, including the water. A great many of the holes have been very much enlarged and the pavements injured by putting water in under pressure, getting under the paving and lifting it. The bad condition and the holes are made worse if you clean by flushing.

*Q.* Were you able, from your experience, to form an estimate as to the age of any of these defects?

*A.* Yes.

*Q.* What estimate, generally, did you form?

*A.* I think I can state that I could form from experience an estimate that many of those holes had been there more than a year, and some of them I could identify as having been there, in my judgment, two and three years. I am not speaking from personal knowledge; that I also could speak from, but not in answering that question you asked.

*Q.* Did you form an estimate as to whether or not any large proportion of these defects were due to the natural wear and tear of the winter's traffic or the water?

*A.* On asphalt pavements, which are practically artificial mastics, which we use so largely in New York, the water superinduces the defects and during the winter the traffic makes the hole larger. Possibly ten per cent. of what I have seen in all the pavements were holes and defects due to the past winter.

*Q.* To what do you ascribe the other ninety per cent.?

A. To general wear and tear previous to last fall over a period of years and the neglecting of small holes when they first appeared, for asphalt pavement must be repaired promptly and is in many cities, if you wish really to repair it.

Q. Now, Mr. Howard, are you familiar with the condition of the asphalt pavements of other cities in this country?

A. I am.

Q. Are you familiar with the condition of asphalt pavements of cities in Europe?

A. I am. The principal streets, about eighteen or twenty in Germany, six or eight in France, several in England, some in Switzerland and Italy.

Q. Will you state how, in your opinion, the asphalt pavements of this borough compare with those of other cities here and abroad?

A. In what respect?

Q. In respect to condition—physical condition?

A. They are in much worse physical condition as to uniformity of surface and continuous good repair, very much worse condition than large sections of Brooklyn, Washington City, Detroit, Newark, New Jersey—I have to speak slowly so I can see the streets in my mind as I speak of the cities—Los Angeles, California, where no guarantee is allowed. The city is held responsible for immediate results and constant good repair. In Los Angeles, Mexico—oh, this country only?

Q. Here and abroad.

A. Mexico City, New Orleans under the new regime of the Municipal Repair Plant, being put rapidly in repair and most of it in good repair already. I think I named Detroit. If not, it is kept in repair by the city administration through its City Repair Plant, new work being done by contractors, the repair plant doing a little new work at times. Paris, France, the asphalt pavement maintained in constant good repair, the wood pavement hard to keep in repair as they grow old. Berlin, Ger-



many, one immense checkerboard of asphalt pavement. London, Geneva, Switzerland, is perfect.

*Q.* Can you say, Mr. Howard, whether you consider the——

*A.* When last seen they were and over the periods I saw them. I have not been to all those places in the last year or two.

*Q.* Can you tell us, Mr. Howard, whether, in your opinion, the present condition of these pavements is one to be normally expected at this time of the year?

*A.* No, sir, abnormal condition.

*Q.* Why?

*A.* I say not to exceed ten per cent. is due to a couple of months of bad weather. We have had an unusually good and open winter until along in January. They are due to the abnormal neglect of repairs on the part of either contractors or some one to have those repairs made promptly, whether due to a lack of funds or other reasons I do not know, but from an engineering standpoint the asphalt pavements of New York City have been neglected over long periods of time and the repairs have been at irregular periods, and in my judgment, sporadic. I speak from knowledge, not theory now, having watched them constantly for nineteen years.

*Q.* You spoke a few moments ago of certain streets other than those you named in which you noticed slight defects. Will you tell us what, in your judgment, what steps, in your judgment, should be taken in the case of such streets?

In the summer have the repair gangs, as they are called, pass along and make those repairs rapidly. It should be done in a few minutes at each spot. In the winter, do as they do in Berlin, have a master point out the places, swab it out and put in a little mastic, and let that stay until spring, and when you make your spring repairs, pull out that mastic and make your repairs properly.

*Q.* Is it possible to protect the pavements during the winter time?

*A.* Except when they are covered with ice and snow or otherwise you cannot get at them, but in moist weather you can make repairs, if you have to, on important streets or other streets. From an engineering standpoint, you can make a repair at any time, except when the pavements are covered with that which you should not be expected to go under. I have repaired a good many streets in this city when I have had to shovel off snow to do it, but they were pressing repairs, where it was insisted upon.

*Q.* Can you tell us, from your experience in the asphalt business, and in the care of asphalt pavements, what you consider to be the important element in the maintenance in the repair of asphalt pavements?

*A.* Prompt reporting of holes, without respect to what causes the holes and defects, to some central authority, to know where they are, that is the first step. The second step would be prompt attention to those repairs, to have them made.

*Q.* From your experience in asphalt pavements can you express an opinion as to whether or not it would be possible to organize a system of prompt repairs in the city?

*A.* It certainly would be possible. It has been done in a great many cities, and is now going on in a number of cities.

*Q.* Will you name some cities in which you know from your own experience such a system is maintained?

*A.* Brooklyn, New York, an excellent system. Washington City an excellent system, differs slightly from the Brooklyn methods. All the European cities I have named and several more in this country, Detroit.

*Q.* Have you examined any asphalt pavements in this borough with respect to the foundation?

*A.* I have, or foundations, for there are several kinds. As to asphalt pavements I am speaking now.

*Q.* I am speaking of asphalt pavements merely. What have you found?

*A.* There are practically four groups or systems of foundation. One is a cement concrete, laid, say, about six inches thick, on which the asphalt pavement superstructure goes. The next system is stone block pavements, in situ, not having been disturbed after having been consolidated by traffic for some years. Another system is where the old stone blocks were taken up and laid down on their sides, many of them taken away, because, of course, they occupy more space when laid on their sides. That was done because the curbstones were not high enough to permit of putting the asphalt pavement wearing surface layer on top of the old pavement without disturbing it. Another system is laying asphalt pavements by means of a rather large amount of bituminous concrete, called in the trade binder, or macadam, and then the asphalt pavement wearing surface on that. Those are practically the four groupings of foundations of asphalt pavements as used in Manhattan.

*Q.* Is it possible, Mr. Howard, to maintain in order asphalt pavements laid on all these foundations?

*A.* Certainly possible, with proper attention at reasonable intervals.

*Q.* Is it more difficult in some cases than in others?

*A.* On concrete, assuming that it is properly laid, it is very easy to do it. On stone block pavements, which themselves are on concrete and solid, it is very easy to do it. On stone block pavements which have been taken up and laid on their sides, the difficulty comes in of having the danger of some loose stones that are not well bedded, and that would be at spots now and then in practice. On macadam, assuming the binder and the asphalt wearing surface is properly laid, it is very easy to maintain it, as upon upper Broadway, New York, where to all intents and purposes it is a concrete foundation. Where the loose blocks are on their sides and the hole is caused by traffic primarily and happens to be at a place where there is a

loose block, the hole is very easily enlarged; therefore, it is all the more important that you should repair your holes quickly if you have any idea you have a shaky foundation there.

*Q.* Mr. Howard, in the examination which you have made and described to us this morning, what proportion of the defects which you noticed in the pavements were due to escaping gas?

*A.* I looked for that particularly. It is very easy to recognize. I found none whatever, except at two points, but you cannot prove it there until you put little tubes in the pavement and connect it in a rubber bag or something and find if it is gas.

*Q.* How can you distinguish a defect due to gas?

*A.* First clean the pavement thoroughly. Second, stick in a knife blade to see if it is a little spot, feeling around. If the pavement is still out of order and the traffic is light I still may suspect gas. Drill a hole through it, put a little gas tube in it and smell. The pavement where the gas affects it also has a sort of a little—has a look as if it were a conglomeration of little kidneys or a sponge pressed flat against a glass and you looked at it through the glass, but if the concrete foundation is solid under the asphalt pavement or under the stone block pavement, that gas won't come through. It goes into the neighboring houses and there is where you find it. I will say that gas affects it if it is wet and soaked quickly, and if dry and hard hardly at all.

*Q.* Did you make any inspection with a view to determining whether the companies operating in this city have been complying with the specifications of the contracts?

*A.* I did.

*Q.* What examinations did you make?

*A.* Of one or two pavements under what is locally called guarantee, namely, maintenance at the expense of the contract over a term of years under the original contract, as First avenue, and, I think, Twenty-eighth

street, near Sixth avenue. I also examined under what is known as maintenance contract, called popularly repair contracts, between the city and some contractor on pavements which have passed beyond the original contract guarantee or otherwise are out of the control of the companies or administration of the companies, as on Sixteenth street.

*Q.* Will you describe to us the last named class of inspection that you made?

*A.* These all have been made within the last part of March and during April of this year, and I can give exact dates any time you want it. About in front of No. 9 West Sixteenth street, between Fifth and Sixth avenues.

*Q.* What did you notice there, Mr. Howard?

*A.* Repairs in progress by a gang of men with a roller labeled Uvalde Asphalt Paving Company.

*Q.* Well, will you tell the Commission what you found there?

*A.* I found them cutting out holes, that is, squaring the holes or trimming them on the edges, putting in a mixture of crushed stone and asphalt cement or bituminous cement that composed the binder, and on top of that the asphalt pavement wearing surface mixture, rolling it, smoothing it, putting a little dust on to keep the roller from sticking, and then passing on to the next hole. I took samples of the material used, which I am examining in my pavement testing laboratory, having not finished the examination of the Sixteenth street yet.

*Q.* Those examinations are not complete?

*A.* But I can speak from memory that I found about 12.9 per cent. of bitumen in the asphalt paving mixture, dissolved it with carbon disulphide, the usual thing used in this country to determine that and named in the specifications. Just what kind of asphalt that is and the quality of the bitumen—I have not yet finished my test on Sixteenth street.

*Q.* Did you examine at any other point?

A. Twenty-first street, north, and Twentieth street, south of Gramercy Park, and Gramercy Park, east and west, yesterday. Work in progress, took samples; the samples, of course, have not been analyzed yet.

Q. Then you cannot give us the result of that yet?

A. I cannot give the full results. Perhaps you better have it all tabulated at one time. I can give my impression and belief, but would rather substantiate it by direct laboratory results.

Mr. MITCHEL—I read from Exhibit No. 81 as follows:

Sixteenth street, from Fifth to Sixth avenue, date of acceptance of contract, June 12, 1891, end of maintenance, June 12, 1906.

I draw your attention to the fact that that street at that point is out of guarantee of maintenance. I am reading from page 75 of Exhibit No. 81.

On Page 86——

Twentieth street, fronting Gramercy Park, June 12, 1891, date of acceptance; June 12, 1916, end of maintenance.

I call to your attention that this street is also out of the guarantee of maintenance.

Page 87——

Twenty-first street, fronting Gramercy Park, date of acceptance, June 12, 1891; end of maintenance, June 12, 1906.

This contract is out of the period of guarantee of maintenance.

I think, Messrs. Commissioners, we will excuse the witness now, subject to recall later.

Mr. LITTLETON—I suppose my usual request to examine the witness is made and denied on the record.

Commissioner HERTLE Put Mr. Littleton on record.

MR. LITTLETON—I try to do it with as little interruption as possible, but I do want it on the record.

MARVIN SCUDDER, called as a witness, being duly sworn, testified as follows:

*Examined by Mr. MITCHEL:*

*Q.* Your full name?

*A.* Marvyn Scudder.

*Q.* What is your business, Mr. Scudder?

*A.* Accounting, auditing, investigations.

*Q.* Where is your place of business?

*A.* 52 Wall street.

*Q.* How long have you been in business, Mr. Scudder?

*A.* Eight years.

*Q.* Will you please state to the Commisison what experience you have had in this work during those eight years?

*A.* During the first part of those eight years—I do not remember the exact date when I ceased doing that work—I did banking work almost exclusively, but not entirely so. At the time I was doing that I took the course of accounting in New York University and graduated and got my degree in 1901. At that time I began to branch out and do all sorts of accounting work. I have been connected with accounting work of almost all natures. The work that I have done which is most analogous to the work I am on at present in regard to investigations, statistical work showing comparative figures, looking after defects in methods and with a view to suggesting improvements, has been connected with investigations of the railroads of the United States, in connection with investigating committees; all these are in this connection.

*Q.* Will you name the investigations in which you have been employed?

*A.* I was just going into that. The insurance investigation. I was Governor Hughes' financial statistician in



that connection, giving information in regard to syndicates and results as found on books and from other records. I was connected with the New Jersey insurance investigation. I have mentioned the railroads, railroad investigations; Governmental and State investigations, Consolidated Gas investigation, Ice Trust investigation. I mentioned the insurance investigation.

*Q.* I think that will do, Mr. Scudder.

*A.* I can mention some others, if you wish.

*Q.* Have you, as one of the representatives of the office of the Commissioners of Accounts, been examining books and records of various bureaus of the Borough President's office?

*A.* I have, and I might add to that the methods—books, records and methods.

*Q.* Have you also examined into the system?

*A.* I have done so.

*Q.* Have you examined into the records and the system of the Bureau of Highways?

*A.* I have.

*Q.* Have you, at the request of the Commissioners, made a particular study of the openings in the street pavements?

*A.* I have, among other things.

*Q.* Can you tell us how the Bureau of Highways classifies as to cause various openings which occur in the pavements of the borough?

*A.* From the records and books and inquiries, I might add, made by myself——

*Q.* Of whom?

*A.* Of the men connected with the Department of Public Works and other departments in the Park Row Building; men under the employ of the Borough President and of the city, and I have classified according to those records the openings in the streets, as follows: Plumbers' openings, and I will describe them in detail after I have finished reading off my notes; plumbers' openings, vault openings, corporation openings, wear and

tear openings, and that includes streets under guaranty and those not under guaranty; unknown causes, fire burns, openings by the Water Department and openings by the Sewer Department, making eight. I think that includes all classes of openings. Do you wish me to describe each one in detail?

*Q.* I will question you about that. Taking up the openings due to wear and tear, can you state who it is that pays for the restoration of the pavement over these openings?

*A.* Streets under guaranty are to be paid for by the companies whose contracts cover these specific streets and which contracts have not run out.

*Q.* What as to those streets not under the original contract?

*A.* As to those streets not under guaranty, they are covered at the present time by the Uvalde Company, what is known and called The Uvalde Contract. The Uvalde Asphalt Paving Company has to keep in repair all wear and tear openings, which are paid for at a fixed price by the city.

*Q.* Now, Mr. Scudder, take up fire burns. Who pays for the restoration of pavements over fire burns?

*A.* The City.

*Q.* In all cases?

*A.* In all cases.

*Q.* In the case of vault permits, who pays for the restoration of the pavement—openings due to vault permits?

*A.* The person putting in the vault.

*Q.* In the case of unknown causes, who pays for the restoration of the pavements?

*A.* If no one can be found that made the opening, the city has to pay for it.

*Q.* In the case of the Water Department and the Sewer Department, the openings due to their operations?

*A.* Well, the contractor pays for that in both cases.

*Q.* In the case of corporation cuts, who pays for the restoration?

*A.* The corporation making the opening.

*Q.* What method is provided to insure the payment of the restoration by the corporation?

*A.* A bond has to be filed.

*Q.* By whom?

*A.* By the corporation.

*Q.* At what time?

*A.* The bond has to be filed to cover any openings to be made in the future, before the openings are made. Usually a company puts up a large bond to cover all openings to be made.

*Q.* What is the system followed when a corporation desires to make an opening in the street?

*A.* Their representative goes to the Bureau of Highways in Park Row and gets a permit, applies for a permit for opening the street, and I believe that has, as far as I could find, always been given to them.

*Q.* And does the bond cover the restoration in that case?

*A.* The bond, as I understand, is a surety for the restoration.

*Q.* Does what you say relative to the permit apply also to vault openings?

*A.* Yes, they have to get a permit in that case. I might say in regard to corporation openings that I found in one case the bond had not been put up.

*Q.* In what case was that?

*A.* That was in regard to the Consolidated Gas. I made a special inquiry in regard to that matter.

*Q.* Now, as to plumbers' cuts, what procedure is followed in that case?

*A.* A permit has to be applied for, and I have in my notes written it down to give an example. It is done the same way in regard to vaults. The application is made by the householder, usually through the plumber, for a

permit. The permit is issued upon the required deposit.

*Q.* What is that deposit?

*A.* That deposit is rather hard for me to describe in detail; it would take some time.

*Q.* Is it a bond or a cash deposit?

*A.* It is a cash deposit.

*Q.* What is done with that deposit?

*A.* That deposit eventually reaches the City Chamberlain; it is paid to the cashier in the Bureau of Public Works and eventually reaches the City Chamberlain. I believe every week they make those deposits with the City Chamberlain.

*Q.* What is the purpose of exacting that deposit?

*A.* To insure the payment for the restoration of the pavement.

*Q.* How is the restoration of the pavement paid for?

*A.* It is paid for by the city. It really is paid for out of the restoring and repaving special trust fund.

*Q.* Which is what?

*A.* Which is the plumbers' fund. It is the fund in which these deposits are put.

*Q.* Do you mean that it is paid for by the city drawing on that fund?

*A.* Drawing on that fund.

*Q.* Are the deposits exacted ever less than required to pay for the restoration of the pavement, speaking of plumbers' cuts?

*A.* I have not found a single instance in which they were less. In fact, they are more than the cost of restoration.

*Q.* Now, Mr. Scudder, did you at the request of the Commissioners, make an examination of the records in the case of permits issued for plumbers' cuts?

*A.* I did.

*Q.* With what view did you make that examination?

*A.* To find out as well as was possible from the books that I have been examining the amount of openings at present not covered.

*Q.* When you say not covered——

*A.* Plumbers' cuts I am speaking about.

*Q.* What do you mean by not covered?

*A.* Not restored.

*Q.* That is, the pavement not restored over the opening?

*A.* Not restored over the opening.

*Q.* What sort of a record is kept by the Bureau of Highways in that matter?

*A.* An entry is kept in the cashier's office.

*Q.* Cashier of what department?

*A.* Cashier of the Commissioner of Public Works' office, which I will describe under the separate headings on each page later, which shows the date of giving of the permit, the date of sending out the order to restore, and the date of completion. There is another book that I would like to say is a practical duplication of that, kept down in the Department of Paving, which seems to be unnecessary.

*Q.* What does that book show?

*A.* That book shows the date of restoration and is indexed according to streets.

*Q.* Does it also show the date of the issuance of the permit?

*A.* I do not recollect that at the moment. I think it does not.

*Q.* But both books show the date of restoration?

*A.* Both books show the date of restoration, if there has been a restoration.

*Q.* Did you find any cases where the pavement had not been restored over plumbers' cuts?

*A.* I found a great many, according to the book.

*Q.* In what years did you find those cases?

*A.* 1904, 1905 and 1906, but I have not gone back of 1904. I have very good reason to believe that there are some back of 1904.

*Q.* When you say you found those cases in 1904, 1905 and 1906, what do you mean?

*A.* Cases where the permit was issued in 1904, for ex-

ample, and the order to restore had been given in 1904, and in some cases the order to restore had not been given; likewise in 1905 and 1906.

*Q.* Did you make an abstract from the records of the cuts which you found made in the year 1904 that are still unrestored?

*A.* I did.

*Q.* Have you that memorandum with you?

*A.* I have.

*Q.* For the year 1904?

*A.* This is the 1904 records (producing paper).

*Q.* Is this the abstract which you made from the record?

*A.* That is a copy which I have prepared and compared with the abstract made from the record.

*Q.* Does this show all the cuts for which permits were granted in 1904 and unrestored on the books?

*A.* It does.

*Q.* Plumbers' cuts?

*A.* Plumbers' cuts, that is, according to the books. Of course, a date might be put in, but where the date of the restoration did not appear, this is the exact copy.

*Q.* Did you examine to see whether there is any record in any of the bureaus showing the restoration of the cuts named in that list?

*A.* This is taken from the cashier's book; it has been compared with the book in the Division of Paving and was found to be correct with those two books, and those appear to be the only records which I have been able to find, and I have made careful investigation that would show the condition of the holes.

*Q.* Did you inquire into the system of inspecting and the reporting of restoration?

*A.* I did.

*Q.* What is it?

*A.* As I said before, the application is made by the plumber; second, the permits are issued upon the required deposit and the deposit sent to the City Chamberlain;

third, inspection is made by the city inspectors or inspector and turned in as ready for paving; fourth, slip sent to Bureau of Highways for official measurement and for order to be sent to asphalt company for repairs; fifth, bill sent by asphalt company on completion; sixth, inspectors sent out to verify bill.

*Q.* Between the issuing of the order to the asphalt company to restore and the receipt of the bill, is there any record of inspection?

*A.* Apparently not; I could find none.

*Q.* Then there is no way of determining from the records of the Bureau whether or not the asphalt company has complied with the order?

*A.* In the place of plumbers' cuts, no.

Mr. MITCHEL—Messrs. Commissioners, I offer in evidence this transcript from the records, identified by the witness.

*Q.* Have you computed the total number of cuts shown on that list?

*A.* I have.

*Q.* What is the total number?

*A.* There appears to be 106.

*Q.* This is the list for 1904?

*A.* This is the list for 1904.

Mr. MITCHEL—I won't burden the record by reading many, but I desire to call your attention to the dates of a few. On January 4, 1904, 74 and 76 New Chambers street, no restoration shown on the books. January 19, south side of 108th street, 200 feet west of Central Park West, no restoration. Notice to repave was sent out on January 29, 1904. Every month of the year is represented on this list, Messrs. Commissioners, and I draw your attention to it. If the Commissioners please, I think it might be wise to direct the stenographer to spread that Exhibit 82 at length upon the minutes.

Commissioner HERTLE—So ordered.



Exhibit No. 82 is as follows:

Book No. Permit	1904 Date	Record of Street Openings Location	Charge	Notice to Repave	Date Completion
19892	Jan. 4th	74 & 76 New Chambers Street.....	\$4	no	no
940	Jan. 12th	N. S. F'l. Wash. Ave. N. of 182.....	8	Jan. 25, '04	no
995	Jan. 19th	S. S. 108th St. 200 ft. W. Central Park West.....	36	Jan. 29, '04	no
20079	" 28th	292 to 298 Man. Ave.....	12	Feb. 9, '04	no ? macadam
080		294 Man. Ave.....	12	Feb. 9, '04	no
130	Feb. 6th	105 Fulton Street.....	20	no	no
186	" 15th	63-65-67 Pine Street.....	54	no	no
201		24 Man. Ave. ....	4	no	no
256	" 19th	S. S. 181st St., 100 ft. Co. Amst.....	20	Mch. 31, '04	no
259	" "	W. S. 2nd Ave. bet. 92d & 93d St.....	20	Feb. 24, '04	no
264	" "	1570 Second Ave.....	4	no	no
273	" "	340 E. 110th St.....	4	no	no
20288	Feb. 19th	304 & 306 E. 94th St.....	4	no	no
294	" "	1608 Second Avenue.....	4	no	no
330	" 23rd	4 & 6 E. 110th St.....	4	no	no
409	" 25th	116 E. 114th St.....	10	no	no
449	" 26th	N. W. Cor. Morningside Ave. & 113th.....	4	no	no
475	" 29th	212 E. 97th St.....	20	Apr. 4, '04	no
492		172 E. 102nd St.....	4	no	no
501		224 E. 103rd St.....	4	no	no
597	Mch. 7th	174 E. 102nd St.....	4	no	no
624	" 8th	E. S. Mad. Ave. 100ft. N. 94th St.....	4	no	no
643	" 9th	1417 Park Ave.....	4	no	no

657	"	10th	327 E. 92nd St.	4	no	no
681	"	11th	337 E. 112th St.	10	no	no
782	"	"	705 & 707 Third Ave.	20	no?	no?
764	"	17th	212 E. 72nd St.	36	no	no
789	"	18th	E. S. Amst. Ave. 163rd & 164th St.	60	no	no
882	"	26th	N. S. 148th St., 100 ft. E. Bdway	10	no	no
958	"	30th	N. S. 103rd St. 175 ft. E. Amst.	20	Sep. 9, '04	no
989	"	31st	N. W. Cor. Baxter & Leonard	4	Apr. 16, '04	no
990	Apr.	4th	12 Avenue A.	4	no	no
21046	Apr.	6th	129 Cherry Street	4	Apr. 8, '04	no
21047	"	"	130th St. & 12th Ave.	4	May 2, '04	no
21059	"	"	24 Thompson St.	2	Apr. 13, '04	no
179	"	13th	247 Canal St. open Elm.	4	no	no
212	"	16th	193 St. Nich. Ave.	4	no	no
393	May	2nd	608 E. 19th St.	10	Apr. 29, '04	no
445	"	6th	S. S. 137th St., 310 ft. E. 5th Ave.	4	June 15, '04	no
517	"	12th	Arch. Bklyn. Bridge, Franklin St.	54	May 24, '04	no
590	"	"	N. S. Amst. Ave. bet. 123d & 124th	6	no	no
630	"	19th	148 Madison Street	18	no	no
650	"	20th	S. S. 103rd 150 ft. W. 2nd Ave.	4	no	no
656	"	21st	72 to 76 New Chambers St.	10	no	no
660	"	23rd	N. E. Cor. Pike & Henry St.	4	no	no
679	"	24th	W. S. Amst. Ave. bet. 58 & 59.	10	no	no
720	"	27th	S. S. 9th St. 178 ft. E. Bdway	140	no	no
722	"	31st	67-71 E. 103rd St.	36	July 26, '04	no
929	June	18th	1627 Mad. Ave.	6	no	no
955	"	20th	412 E. 46th St.	10	no	no
956	"	"	412 E. 46th St.	4	no	no
957	June	20th	31 Ferry	6	no	no
22030	"	28th	222 Clinton Street	10	no	no
22064	"	"	61 & 63 E. 77th Street	10	no	no

Book No. Permit	1904 Date	Record of Street Openings Location	Charge	Notice to Repair	Date Completion
114	July	518 E. 83rd St.....	4	no	no
143	"	N. S. 152nd St. 100ft. W. St. Nich.....	30	Aug. 25, '04	no ? macadam
148	"	260 Monroe St.....	4	no	no
151	"	E. S. Second Ave. 50 ft. S. of 68th.....	6	no	no
162	"	432 E. 102nd St.....	4	no	no
168	"	S. S. Monroe 125 ft. W. Grosvenor.....	10	no	no
190	"	840 Second Avenue.....	6	no	no
282	"	E. S. Mad. Ave; bet. 102d & 103rd St.....	8	no	no
284	"	92 Monroe Street.....	4	no	no
319	"	819 Second Ave.....	10	no	no
377	"	S. S. 96th St. 200 ft. E. 3rd Ave.....	10	no	no
378	"	113, 115, 117 Crosby St.....	10	Aug. 17, '04	no
22380	July	20 Hamilton Street.....	10	no	no
490	Aug.	116 E. 113th St.....	4	no	no
429	"	100 N. Grand St., Cent. Market Place.....	4	Aug. 10, '04	no
443	"	608 Ninth Ave.....	4	Aug. 17, '04	no
461	"	208-210 Mad. St.....	10	no	no
471	Aug.	1181 Second Ave.....	4	no	no
493	"	466 Cherry St.....	20	no	no
510	"	3-5 Man. St.....	4	no	no
523	"	N. E. Cor. 101st St. & 1st Ave.....	6	Oct. 10, '04	no
528	"	2130 Second Ave.....	10	no	no
545	"	442 East 102nd St.....	2	no	no
547	"	S. S. 147th St. 200 ft. W. Amst.....	54	Sep. 30, '04	no
550	"	21 Frankfort St.....	4	no	no

552	"	19th	25 Frankfort St.	4	no	no
572	"	22nd	N. W. Cor. 93rd St. & 1st Ave.	10	no	no
614	"	24th	170 E. 110th St.	4	no	no
625	"	25th	10-12 Broadway	20	no	no
634	"	26th	W. S. Second Ave. 100 ft. S. 92nd St.	10	no	no
652	"	29th	285-287-289 Mad. St.	20	no	no
835	Sep.	19th	34 W. 128th St.	36	Sep. 21, '04	no
864	"	21st	317-321 E. 28th St.	54	no	no
921	"	26th	515 Tenth Ave.	10	no	no
941	"	27th	S. S. 124-275 ft. 3. Bdway	64	Sep. 14, '05	no
23006	Oct.	4th	220 E. 105th St.	10	Oct. 10, '04	no
23040	"	6th	102nd St. & East River	4	no	no
23049	"	"	174 Spring St.	4	no	no
23053	"	7th	169 Greene St.	4	no	no
131	"	12th	N. S. 139 S. S. 140 100 ft. E. Amst. Ave.	64	Oct. 11, '04	no
156	"	14th	2124 Second Ave.	10	Nov. 17, '04	no
277	"	21st	442 W. 154th St.	20	no	no
328	"	26th	S. E. Cor. Convent Ave. St. Nicholas Ter.	64	Oct. 31, '04	no ? macadam
381	"	29th	S. S. 152nd 300 ft. W. Amst. Ave.	80	no	no
23424	Nov.	2nd	S. W. Cor. Hudson & Vandam	56	no	no
425	"	"	S. W. Cor. Hudson & Vandam	10	no	no
431	"	3rd	S. S. 140th St., 150 ft. E. Amst.	40	July 7, '05	no
471	"	7th	S. E. Cor. 121st St. & Amst. Ave.	6	no	no
486	"	9th	N. W. Cor. Amst. Ave. & 138th St.	6	Nov. 1, '04	no
499	"	10th	N. S. 155th St. 175 ft. W. Bdway	10	July 6, '05	no
642	"	28th	383 Broome Street	4	no	no
682	Dec.	1st	967 Col. Ave.	4	no	no
Total.....				1,674		

*Q.* Mr. Scudder, did you make a similar abstract from the records for the year 1905?

*A.* I did.

*Q.* Have you that?

*A.* I have that list.

*Q.* Was that abstract compiled in the same way?

*A.* This was compiled in the same way.

*Q.* Did any of the cuts appearing on that record appear to be restored on the books of the department?

*A.* They do not.

*Q.* Have you computed the total number of cuts recorded on that list?

*A.* I have; 102.

Mr. MITCHEL—I offer this in evidence.

The paper was admitted in evidence and marked Exhibit No. 83, April 19th, 1907, C. B.

Mr. MITCHEL—I draw particularly to the attention of the Commissioners the fact that in the case of this list the first cuts, in the case of which there is no record of restoration, occurred in March. I draw this to the attention of the Commisison because it shows clearly that if in the first month of the year it is possible to ascertain that all the cuts had either been properly restored or to see that they were, the same applies to the last months of the year.

*Q.* Did you make, Mr. Scudder, a similar transcript from the records for the year 1906?

*A.* I did.

*Q.* Based upon the same facts?

*A.* Based upon the same facts.

*Q.* The same comparison of records?

*A.* Same comparison of records, personal inspection.

*Q.* What is the total number of cuts shown on the list for 1906?

*A.* A list for 1906 is a large one. I found in the cashier's office a record of 615 not marked completed.

*Q.* What do you mean by completed?

*A.* Restored. I made a comparison of this record with the duplicate record in the Division of Paving. The record in the Division of Paving is the first record made. The bill comes to Mr. Wilkinson in the Division of Paving. It is only natural that in the course of passing and checking over these bills that he would get information and make a record of it on his books before the cashier in the Commissioner of Public Works' office, and I find that the list that he has unrestored for 1906 is less than this list, but this is a correct copy of the record of the unrestored cuts.

*Q.* And how many do you say it shows? *A.* It shows 615, but they are somewhat less in the Division of Paving, so I have been conservative and deducted 25, estimating 578, but that is a very conservative deduction.

*Q.* Did you make a comparison of the two lists? *A.* I made a comparison of the two lists, but owing to the shortness of time, could not make as thorough a comparison as I would like to, but this is a correct copy of the list in the cashier's office, and it is almost exactly identical with the list in the Division of Paving.

*Q.* How did you form the estimate of 25 marked restored—what is the name of that book?

*A.* In the Division of Paving?

*Q.* In the Division of Paving and not marked restored in the cashier's office?

*A.* I had this checked over on a separate list and counted up roughly about 25, but I didn't verify that; one of my assistants did that, and therefore I make the statement now that this is the list I have taken off and my assistant, who is also in the employ of the Commissioners of Accounts, roughly computed there were possibly 23 or something of that kind.

*Q.* Did you make a similar comparison and checking in the case of the list for 1904 and 1905?

*A.* I did. Those appear to be correct.

*Q.* You found no case in those lists where the cut was recorded as restored in one book where it was not on the other?

*A.* None that I have knowledge of.

Mr. MITCHEL—I offer this in evidence.

The paper was admitted in evidence and marked Exhibit No. 84, April 19, 1907, C. B.

Mr. MITCHEL—I also draw the attention of the Commission to the fact that this list shows every month in the twelve for the year 1906.

The WITNESS—In some cases, Mr. Mitchel, the order to restore has not been given, as can be seen where “no” is written.

Mr. MITCHEL—I also draw the attention of the Commission to the fact that the date when an order to restore was issued is recorded in this list and that in many instances the lists for these three years show no issuance of an order to restore by the department.

*Q.* Mr. Scudder, did you at the same time make an examination of the cuts made by public service corporations?

*A.* I did.

*Q.* What did you find as to such cuts?

*A.* I found that there were a great many, according to the books, that were unrestored.

*Q.* What kind of record is maintained by the Department in the case of such cuts?

*A.* A book very similar to the one I have described is kept in regard to corporation cuts. There is a column showing date of restoration, date of order, and date of permit, reading backwards.

*Q.* Are there two records kept in this case as in the other?



A. There are two records kept—no, there is only one record kept. There are two books kept, one running alphabetically from A to Z and the other running numerically from 1 up to the highest number reached.

Q. Have you checked all of these lists on these books?

A. I have, except in one case where a clerk in the department took off this list and signed it, and I checked back a number of the items to see if it was correct and it appeared to be.

Q. Beginning with the year 1904, did you find a record of any cuts unrestored in that year?

A. I found a record of a great many.

Q. Did you make a transcript from the records in the case of those cuts?

A. I did, by dictating to my assistant.

Q. Have you that transcript?

A. I have, it shows 76 (producing paper).

Q. A total of 76 cuts?

A. Unrestored.

Q. Is this the year 1904?

A. That is for the year 1904, and I might say that that does not include all that are not marked restored, because there are the Water Department cuts——

Q. I am not asking you as to those.

Mr. MITCHEL—I offer the list in evidence.

The paper was admitted in evidence and marked Exhibit No. 85, April 19th, 1907, C. B.

Q. Did you make a similar transcript from the records for the year 1905?

A. I did.

Q. Did you find any cuts unrecorded as restored in that year?

A. I did.

Q. How many cuts?

A. 735.

Q. 735?

A. Yes.

Q. (Handing paper.) Is this the transcript that you made?

A. This is the transcript.

Mr. MITCHEL—I offer that in evidence.

The paper was admitted in evidence and marked Exhibit No. 86, April 19th, 1907, C. B.

Q. Did you make a similar examination for the year 1906?

A. I did. I have already explained how that record was made.

Q. Explain again how that record was made for the year 1906?

A. This record was made and copied off by J. J. Donegan, who is under the chief engineer, Mr. Olney.

Q. At whose request?

A. At my request, and he has signed this at my request as being taken off by him in March, 1907. I have checked back some of these and find that they are correct. I haven't checked all of them back. The amount appears to be 1405 unrestored, according to those records.

Q. Did you ask him to make this transcript?

A. He had made a transcript, and I asked him to make a copy of it for me, and he signed it as you can see.

Q. Did you tell him what your purpose was in asking for this transcript—I mean as to showing whether or not a cut had been restored?

A. I think he understood that. I told Mr. Gilroy that I wanted to show the unrestored cuts. I had some little talk with him about it.

Q. Who was it that requested Mr. Donegan to make this list, you or Mr. Gilroy?

A. Mr. Gilroy originally, I believe. I correct my former testimony in regard to that matter.

Q. Did you have any conversation with Mr. Donegan about that?

A. I did, and he signed it in my presence.

Q. What conversation did you have with him?

A. I asked him if this was a correct list. I had at the time his written list, and I had this made up in the office.

Q. In what office?

A. In the office of Mr. Olney; I was there every little while to see that it was being done properly, and I asked Mr. Donegan to sign it as being correct, and he did sign it.

Q. Have you computed the total number of cuts recorded in this transcript?

A. I have. I have counted them up from the list—1405.

Mr. MITCHEL—I offer this in evidence.

The paper was admitted in evidence and marked Exhibit No. 87, April 19th, 1907, C. B.

Q. Did you find any other cuts in the pavements of the Borough for which permits are exacted?

A. I might say these are simply asphalt cuts.

Q. Did you find any other cuts in the pavements of the Borough for which permits are exacted unrecorded as restored, besides these that you have mentioned?

A. Granite pavement, stone pavements.

Q. Cuts due to what causes?

A. To openings by corporations.

Q. Did you make a transcript from the records in the case of those cuts?

A. I did.

Q. Have you those transcripts?

A. I have. This is it, for the years 1904, 1905 and 1906 (producing papers).

Q. Is the record in such case similar to the record in asphalt pavements?

A. It is; but this contains, I might say right here, plumbers' cuts to open, also corporation openings.

*Q.* Therefore as between that transcript and the first series of transcripts that you handed in, there will be some duplication, is that correct?

*A.* Yes, in the case of plumbers' cuts, but in the case of corporation cuts, no.

*Q.* Only in the case of plumbers' cuts?

*A.* Plumbers' cuts.

*Q.* Have you distinguished in that transcript between plumbers' cuts and corporation cuts?

*A.* I have only for the year 1906.

*Q.* What number of cuts did you find in the year 1906 in the case of corporations?

*A.* A very large amount over and above the plumbers' cuts. The plumbers' cuts in stone pavements are very small compared to the corporation cuts in stone pavements.

*Q.* Did you compute the total number of plumbers' cuts unrestored in 1906 in stone pavements?

*A.* I did. There were 319.

*Q.* Have you a transcript of that?

*A.* Unrestored, did you say?

*Q.* Yes.

*A.* I have not. The plumbers' cuts are included in here, understand.

*Q.* When you say 319, do you mean the total of cuts unrestored in stone pavements for 1906, including both corporations' and plumbers'?

*A.* No. I will have to explain this. There is a granite book, which Mr. Wund has charge of. It shows for the year 1906 that over 270,000 square yards of granite restoration work was done in the Borough of Manhattan. Out of that 319 plumbers' cuts were made, and I have given a liberal estimate when I say that those plumbers' cuts are under three square yards, so that makes a little over a thousand square yards as against 270,000 square yards, which shows how small the proportion is.

*Q.* How did you know that 319 plumbers' cuts were made?

A. By counting up the number of plumbers' cuts from the granite book.

Q. Now, leaving that whole question, have you made a transcript from the records of the Department of the total number of cuts made by corporations in stone pavements in the year 1906 that are now unrestored on the records of the Department?

A. I have.

Q. Have you that transcript here?

A. I have. For the year 1904—

Q. I said for the year 1906, first.

A. 385.

Q. Do those refer to corporations only or do they also cover plumbers' cuts?

A. These also cover plumbers' cuts, but I have stated the number is very small.

Q. I will ask you again, is the record kept by the Department the same as to these openings of stone pavements as in the case of openings in asphalt pavements?

A. Practically the same.

Mr. MITCHEL—I offer that list in evidence.

The paper was admitted in evidence and marked Exhibit No. 88, April 19, 1907, C. B.

Q. Have you a similar transcript for 1905?

A. I have.

Q. Does this transcript also include both plumbers' cuts and corporation cuts?

A. It does.

Q. Have you computed the total shown on that transcript?

A. I have.

Q. What is it?

A. 63.

Mr. MITCHEL—I offer this in evidence.

The paper was admitted in evidence and marked Exhibit No. 89, April 19, 1907, C. B.

Q. Have you a similar transcript for 1904?

A. Yes; 120.

Mr. MITCHEL—I offer it in evidence.

The paper was admitted in evidence and marked Exhibit No. 90, April 19, 1907, C. B.

Q. To further fix the facts concerning these transcripts of openings in stone pavements, they include both plumbers' cuts and corporation cuts?

A. They do.

Q. As to plumbers' cuts they duplicate the transcripts which you have already handed in for 1904, 1905 and 1906?

A. As I understand it, they do.

Q. As to corporation cuts they do not duplicate?

A. They do not, as to corporation cuts.

Q. Mr. Scudder, have you examined the form of permit issued to the Consolidated Gas Company on applications for openings of pavements?

A. I have.

Q. Have you a copy of that permit with you?

A. I have.

Q. Where did you obtain it?

A. I obtained it from Mr. Kahn in the Engineers' Department, as we call it, Department of Chief Olney.

Q. What are Mr. Kahn's duties?

A. His duties are to look after the permits for corporations.

Q. (Handing paper.) Is this a copy of that permit?

A. That is a copy of the permit.

Q. Have you ever seen any of these permits as filled out?

A. I have seen the stubs filled out, and I believe I have seen the permits, though I do not remember.

Q. You have seen the stubs?

A. I have seen the stubs, looked at those particularly.

Q. Is any record kept of the issue of the permits or the contents of the permits other than that stub?

A. Not that I know of.

Q. They are recorded, however, in these same records?

A. Oh, in those records, yes.

Q. Do either of those records from which you took these transcripts or the stubs in the case of the Consolidated Gas Company show a record of the day on which the pavement is to be restored by the company?

A. They do not, in every instance that I have looked at.

Q. There is no record of the day on which the company agrees to restore the pavement?

A. None that I could find.

Q. Did you examine with a view to ascertaining that?

A. I did.

Q. Particularly?

A. Particularly.

Q. (Handing paper.) Is this the copy of the permit?

A. That is a copy of the permit.

Mr. MITCHEL—I offer that in evidence.

The paper was admitted in evidence and marked Exhibit No. 91, April 19, 1907, C. B.

Mr. MITCHEL—In this connection, if it please the Commission, I wish to call the attention of the Commission to the provisions of law in this matter. Section 391 of the Charter is a section which controls in the matter of the issue of permits by the Borough President for the opening of pavements by individuals or corporations. I draw your attention to the fact that it calls for security to be posted by the individual or corporation applying for permit to open the pavement. The concluding sentence of that Section is as follows: "But nothing herein contained shall be deemed to prohibit said Borough President from demanding, before issuing said permit, and as a condition thereof, the deposit of such sum of money or other security as, in his judgment, may be necessary to pay the cost of properly relaying the pavement so re-



moved, together with the expense of the inspection thereof." It is under the provisions of that last sentence that the Department calls upon the public service corporations to post a bond, and the plumbers to post the cash security for the restoration of pavements.

I also desire to read to you Section 138 of the revised ordinances of 1902, which appears in the same form as Section 278 of the revised ordinances as compiled in 1902. I am reading in the case of 1907 from Crosby's Code, and in the case of 1902 from Brown's Greater New York General Ordinances.

Section 138 of the ordinances of 1907 provides: "It shall not be lawful for any of the gas companies of this City to break up any of the pavements of this City without the permission of the President of the Borough in which such work is to be done; and such consent shall not be given until the party applying therefor shall enter into a stipulation satisfactory to the Borough President to repair and replace the said pavement to the satisfaction of the said Borough President, at his and their own expense, by a day to be named in such permit; and if any person or persons shall neglect or refuse to repair and replace the same in accordance with such stipulation and permit, they shall forfeit and pay for each offense the sum of \$50.00, and in addition thereto shall be liable to pay the expense of repairing and replacing such pavement, which shall be done by and under the direction of the said Borough President."

Section 278 of the ordinances of 1902 is almost word for word the same as the section which I have just read to you, and I call it to your attention. Section 138, which I have just read, is from the ordinances of 1907, and I call your particular attention to the provision that the pavement is to be restored by said gas company by a day to be named in the permit.

Although it may encumber the record, I think it well to call your attention to the provisions of Sections 148 to 151 inclusive, of the revised ordinances of 1907, and to the revised ordinances of 1897, on which the Sections are based and of which they are almost exact duplicates.

I will read from the revised ordinances of 1907, as follows:

“Section 148. It is hereby made the duty of the Borough Presidents, each in their respective jurisdiction, whenever granting a permit for an excavation, opening or disturbance of the pavement of the carriageway of any street, avenue or public place in the City of New York, or sidewalk of, except in cases where such opening, excavation or disturbance shall be directly authorized by law, to require of the person or persons by whom and for whose benefit the excavation or opening is to be made, for any purpose whatever, a deposit of such sum as shall be deemed sufficient to cover and pay all the expenses on the part of the department granting the permit, as the case may be, of furnishing such material, doing such work, and taking such means as shall be required to properly restore and secure against sinkage, the street and sidewalk, pavement, curb and flagging necessary to be replaced in consequence of making such excavation, opening or disturbance; which deposit shall be a full discharge of all liability and claim against the person or persons making such deposit and payment for the work herein provided for and required of the department aforesaid.

“Section 149. The said Borough Presidents shall deposit weekly with the City Chamberlain all moneys received under the last preceding Section, an account of which moneys shall be kept separate and distinct from all other funds and accounts whatsoever by the said Borough President and the City

Chamberlain, who shall receive the same as a 'special fund' in respect to each department separately, which is hereby created and established subject to such payments as hereafter provided for.

"Section 150. Whenever any pavement, sidewalk, curb or gutter in any street, avenue or public place shall be taken up, it shall be the duty of the Borough President, within whose jurisdiction said street or avenue is, to restore such pavement, sidewalk, curb or gutter to its proper condition as soon thereafter as is practicable, requiring the person or persons by whom or for whose benefit the same is removed to deposit the material composing the superstructure without breaking or injuring the same, and in a manner which will occasion the least inconvenience to the public, and to fill in any excavation made, and to leave the same properly packed, rammed and repaired for the repaving required. And the said Borough Presidents are hereby authorized to establish such rules and regulations as in their judgment shall be deemed necessary for the purpose of carrying out the provisions of this ordinance.

"Section 151. Such sums as shall be certified by the said Borough Presidents to have been necessarily expended by him or them for any repaving done pursuant to this ordinance, shall be paid from the special fund hereby created upon the requisition of the said Borough Presidents, as the case may be, after examination, audit and allowance of accounts by the finance department, in the same manner that payments are or shall be required by law to be made from the City Treasury, provided that the amount so certified and paid shall not exceed the aggregate amount of such special fund."

I also call your attention to the same sections, which are sections 740, 741, 742 and 743 in the revised ordinances of 1897.

I have nothing further to ask this witness at the present time, and if it please the Commission, as I have no other witness ready for this hearing, I move that we adjourn until ten-thirty o'clock on Monday morning.

MR. LITTLETON—Before you adjourn I want to renew my famous request and have it denied.

Commissioner HERTLE—Keep Mr. Littleton on record.

Adjourned to Monday, April 22, 1907, at 10:30 a. m.

Next Exhibit No. 92.

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NEW YORK, April 22, 1907.

Met pursuant to adjournment.

Present—HON. JOHN C. HERTLE and GEORGE C. VON SKAL, Commissioners of Accounts; and MR. MITCHEL, MR. BRUERE and MR. LITTLETON.

MR. MITCHEL—If the Commission please, as directed by your commission. the Corporation Counsel took steps to compel the attendance here to-day of three of the witnesses who failed to appear on Thursday morning last. Before process had been placed in the hands of the Sheriff, at the request of Mr. Littleton, the counsel for the Borough President, the process was stopped upon Mr. Littleton's agreement to produce here this morning the three witnesses, and in case of whom, the test was to be made, and to allow them to be sworn. I anticipate that there will be a refusal to answer the questions which are to be put to the witnesses. In that event, as I understand it, your Commissioner desires to test your authority in the premises, and counsel and I have come to an agreement whereby we will test the powers of the Commission

through an application for an order to show cause why the witnesses should not be punished for contempt, and it is stipulated that we will proceed through an order to show cause, and not summarily.

MR. LITTLETON—I may say, if the Commissioners please, inasmuch as Mr. Mitchel has said this, begging the indulgence of the Commission awhile, notwithstanding the ruling of the Commission that I should not say anything, when the notice came to me that they were to compel the witnesses to attend, of course I saw that it was idle to do so, because I could have come here and still they would not answer and still the counsel would be without any remedy, so I called his attention to the fact that I would produce these witnesses here this morning, that we would agree that they might be asked certain questions, and that they would decline to answer, because of the advice of counsel, not because they have anything to conceal, but because there is a desire everywhere to see the powers of this Commission tested. The question has been mooted before the Governor and before the Corporation Counsel, and it has become now an interesting municipal problem just how far this Commission can go, and these witnesses will decline to answer, with no intention of disrespect to the Commission and with no intention of being guilty of contumacious conduct, but simply to test the questions involved.

GEORGE F. SCANNELL, called as a witness, being duly sworn, testified as follows:

*Examined by* MR. MITCHEL:

*Q.* Mr. Scannell, what is your official position?

*A.* I decline to answer.

*Q.* On what ground?

*A.* On advice of counsel.

MR. MITCHEL—I submit to the Commission that the only valid ground on which the witness can re-

fuse to answer is upon the ground that it would tend to degrade or incriminate him, and I ask for a ruling.

Commissioner HERTLE—You are directed to answer the question.

The WITNESS—I decline to answer.

Mr. LITTLETON—He declines to answer, not upon the ground that it would tend to incriminate him at all, but under the advice of counsel that this Commission is without power to conduct this examination.

*Q.* Mr. Scannell, what are your functions and duties as Superintendent of Highways, as you understand them?

*A.* I decline to answer on the same grounds.

Commissioner HERTLE—Mr. Scannell, answer the question.

The WITNESS—I decline to do so.

*Q.* Mr. Scannell, outline the organization of the Bureau of Highways?

*A.* I decline to do so on the same grounds as before.

Commissioner HERTLE—Answer the question.

The WITNESS—Again I decline.

*Q.* Mr. Scannell, are you directly responsible to the Commissioner of Public Works or the Borough President?

*A.* I decline to answer that question.

*Q.* On the same grounds?

*A.* On the same grounds.

Commissioner HERTLE—Answer the question.

The WITNESS—I again decline to answer.

*Q.* Mr. Scannell, what provision is made by the Bureau for the maintenance and repair of the asphalt pavements of the Borough?

*A.* I decline to answer that question on the advice of counsel.

Commissioner HERTLE—Answer the question.

The WITNESS—I decline to do so.

Mr. MITCHEL—Messrs. Commissioners, I ask you to warn this witness as to the procedure that will be taken.

Mr. LITTLETON—I may say, Messrs. Commissioners, to save the counsel the trouble, that the witness is fully advised so far as the course to be pursued is concerned, that an application is to be made to the Supreme Court—

Mr. MITCHEL—I merely ask that that be spread upon the record.

Commissioner HERTLE—Mr. Scannell, the Commission desires to call the attention of the witness to the fact that unless he answers the questions that have been propounded by counsel, he stands in contempt of the authority of this Commission and will be proceeded against accordingly.

The WITNESS—I understand that, sir.

Mr. MITCHEL—As the witness has refused to answer the questions, I have none further to put to him.

GEORGE R. OLNEY, called as a witness, being duly sworn, testified as follows:

*Examined by* Mr. MITCHEL:

*Q.* What is your official position?

*A.* I decline to answer upon the advice of counsel.



Mr. MITCHEL—It is stipulated that the —

Mr. LITTLETON—Same procedure in regard to Mr. Olney as Mr. Scannell, and same answers.

*Q.* What are your duties as Chief Engineer, as you understand them?

*A.* I decline to answer the question on the advice of counsel.

Mr. MITCHEL—It is stipulated the same procedure applies as to this witness?

Mr. LITTLETON—Yes, throughout the same procedure.

*Q.* Mr. Olney, to what official are you directly responsible for the performance of your duties?

*A.* I decline to answer on the same grounds.

*Q.* What is the method of inspection of asphalt pavements under guaranty or maintenance employed by the Bureau during the life of the guaranty?

*A.* I decline to answer upon the advice of counsel.

*Q.* What means do you employ to assure compliance by the asphalt companies laying monolithic pavements in this Borough with specifications?

*A.* I decline to answer on the same grounds.

Mr. MITCHEL—Will you spread upon the record the same warning.

Commissioner HERTLE—Mr. Olney, the Commission desires to call the attention of the witness to the fact that unless he answers the questions propounded by counsel, he stands in contempt of the authority of this Commission and will be proceeded against accordingly.

Mr. MITCHEL—I have no further questions to ask.

WILLIAM H. WALKER, called as a witness, being duly sworn, testified as follows:

*Examined by* Mr. MITCHEL:

*Q.* What is your official position, Mr. Walker?

*A.* I decline to answer by the advice of counsel.

Mr. MITCHEL—It is stipulated that the same procedure is followed?

Mr. LITTLETON—It is stipulated the same reasons be given for declining to answer as were made by Mr. Scannell.

*Q.* Mr. Walker, what are your official functions and duties, as you understand them?

*A.* I decline to answer for the same reason.

*Q.* Describe in detail the organization of your Bureau?

*A.* I decline to answer for the same reasons.

*Q.* Mr. Walker, in what private business were you engaged prior to your appointment as Superintendent of Public Buildings and Offices in the Borough?

*A.* I decline to answer for the same reasons.

*Q.* Mr. Walker, in the purchase of supplies, what means do you employ to insure the City against the payment of an excessive price for the articles purchased?

*A.* I decline to answer for the same reasons.

*Q.* Are you able to determine from the records of your Bureau the cost per year of maintaining each of the buildings in the care of your Bureau?

*A.* I decline to answer for the same reasons.

Mr. MITCHEL—I ask that the same warning be spread upon the minutes.

Commissioner HERTLE—Mr. Walker, the Commission desires to call your attention to the fact that unless you answer the questions that have been propounded by counsel, you stand in contempt of the

authority of this Commission and will be proceeded against accordingly.

Mr. MITCHEL—I have no further questions.

Mr. LITTLETON—It is stipulated that Mr. Mitchel will serve his order to show cause on me and I will accept that as sufficient service.

Mr. MITCHEL—It is so stipulated?

Mr. LITTLETON—Yes.

OTTO H. KLEIN, called as a witness, being duly sworn, testified as follows:

*Examined by* Mr. MITCHEL:

Q. Mr. Klein, what is your business?

A. Civil engineer.

Q. Where are you employed?

A. Commissioner of Accounts.

Q. In what capacity?

A. As chief engineer.

Q. In the performance of your duties, have you had occasion to become familiar with the methods and systems of the Bureau of Highways?

A. I have.

Q. Are you familiar with the form of contract and specifications used by the Bureau for the letting of asphalt and asphalt block pavements?

A. I think I am.

Q. Did you procure such forms from the files of the Bureau at my request?

A. I did.

Q. (Handing paper) I show you this form and ask you what it is?

A. This is a regular form of contract for paving streets with sheet asphalt as used at the present time by the Bureau of Highways, Borough of Manhattan.

Q. Has it the specifications attached?

A. It has. Of course it is a blank form.

Q. Is that the form used at the present time by the Bureau?

A. Yes, sir.

Mr. MITCHEL—I offer that in evidence.

The paper was admitted in evidence and marked Exhibit 92, April 22nd, 1907, C. B.

Q. (Handing paper) I show you this form and ask you what it is?

A. It is a blank copy of the specifications used for paving streets with asphalt blocks as used at the present time in the Bureau of Highways, Borough of Manhattan.

Q. Where did you procure this, Mr. Klein?

A. From the same source, from the official in charge of the specifications, Bureau of Highways.

Q. Did you procure both of these at the same place?

A. Yes.

Q. At my request?

A. At your request.

Q. How did you get them?

A. I didn't get them myself, I procured them through one of my men.

Q. Who handed them to you?

A. Mr. Tracy, one of my inspectors.

Q. Where did he procure them?

A. He got them from the official in charge of the specifications, Bureau of Highways.

Mr. MITCHEL—I offer that paper in evidence.

The paper was admitted in evidence and marked Exhibit No. 83, April 22nd, 1907, C. B.

Mr. MITCHEL—That is all with this witness.

MARVIN SCUDDER, recalled for further examination, testified as follows:

*Examined by* MR. MITCHEL:

*Q.* Mr. Scudder, did you procure at my request copies of contracts on file in the Bureau of Highways for the maintenance of asphalt and asphalt block pavements in this Borough?

*A.* I did.

*Q.* (Handing paper) I show you this form and ask you what it is?

*A.* This is the contract made with the Uvalde Asphalt Paving Company April 18, 1906, for repaving and maintaining sheet asphalt in the Borough of Manhattan on streets out of guaranty, No. 64 is the number of the contract.

*Q.* Where did you procure that, Mr. Scudder?

*A.* From Mr. Carragher, in the Commissioner of Public Works' office.

*Q.* What is Mr. Carragher's position?

*A.* Mr. Carragher's position is clerk, and he looks after the contracts.

*Q.* Is this contract now in force?

*A.* That contract is now in force—it was at the time I examined it. It may have run out now. It was for a year, as I remember.

MR. MITCHEL—I offer that in evidence.

The paper was admitted in evidence and marked "Exhibit No. 94, April 22, 1907, C. B."

*Q.* (Handing paper) I show you this form and ask you what it is?

*A.* This is the contract that I procured, made by the Borough of Manhattan with the Uvalde Asphalt Paving Company, for block asphalt, dated the 10th day of September, 1906, No. 143.

*Q.* Is it for maintenance?

*A.* This is for maintenance.

*Q.* Where did you procure this?

*A.* I procured that from the same source, Mr. Carragher, at the Commissioner of Public Works' office.

*Q.* Is that contract now in force??

*A.* That is now in force.

Mr. MITCHELL—I offer this in evidence.

The paper was admitted in evidence and marked  
“Exhibit No. 94, April 22, 1907, C. B.”

Mr. MITCHELL—I ask the Commissioners to temporarily excuse this witness, as I have here two witnesses holding official positions who desire to return to their work.

Commissioner HERTLE—The witness is excused.

JOHN H. ANDREWS, called as a witness, being duly sworn,  
testified as follows:

*Examined by* Mr. MITCHELL:

*Q.* What is your business, please?

*A.* I am clerk in charge of contracts in the Department of Finance.

*Q.* In the performance of your duty do you become familiar with the contents and provisions of the contracts for paving the streets of this borough?

*A.* Yes, sir.

*Q.* Are you familiar with the forms of contracts and specifications used?

*A.* Yes, sir.

*Q.* (Handing paper) I show you Exhibit No. 92, and ask you what is the practice of the Department of Finance in respect to retaining any percentage of the amount due the contractor under such contracts, and for what length of time such percentage is retained, if any?

*A.* Well, that appears in the contract. This form is provided for by law and approved by the Corporation Counsel's office. He makes suggestions, the Corporation

Counsel approves these, and it is absolutely necessary according to law to have that provision of the contract inserted.

*Q.* What I asked you is, what is the practice of the Finance Department as to the retention of a percentage?

*A.* That would not pass me, that is not my duty.

*Q.* That you cannot answer?

*A.* That I cannot answer.

*Q.* Can you say how long the bond given pursuant to the provisions of that contract remains in force and on file in the Finance Department?

*A.* Five years from completion.

*Q.* I show you Exhibit No. 93, and ask you how long the bond given pursuant to the provisions of that contract remains in force on file in the Finance Department?

*A.* Five years.

*Q.* Can you answer in the case of this contract the question I put to you before as to retained percentages?

*A.* No, sir.

*Q.* I show you Exhibit No. 94, and ask you how long the bond given pursuant to the provisions of that contract remains in force and on file in the Finance Department?

*A.* One year.

*Q.* Can you answer the question of retained percentage in the case of this contract?

*A.* No, sir.

*Q.* I show you Exhibit No. 95, and ask you how long the bond given pursuant to the provisions of that contract remains in force and on file in the Finance Department?

*A.* One year.

*Q.* Can you answer the question as to retained percentages in the case of this contract?

*A.* No, sir.

*Q.* Who is the official in the Finance Department within whose knowledge this question of retained percentages is?



A. I should judge, the auditor.

Mr. MITCHEL—That is all.

JOHN T. ROACH, called as a witness, testified as follows:

*Examined by* Mr. MITCHEL:

Q. What is your business?

A. I am messenger for Headquarters, carrying packages.

Q. Headquarters of what?

A. Of police, No. 300 Mulberry street, carrying packages to the different buildings.

Q. How long have you been a member of the force?

A. Thirty-nine years.

Q. Can you state whether the department publishes an official book of rules for the guidance of the force?

A. Yes, sir.

Q. (Handing book) I show you this, and ask you if that is a copy of that book?

A. Yes, sir, that is one of our books.

Mr. MITCHEL—I offer this in evidence

The book was admitted in evidence and marked Exhibit No. 96, April 22, 1907, C. B.

Mr. MITCHEL—Reading from Exhibit No. 96, page 131, Rule No. 52, Subdivision I, provides:

“If any officer observes in the street anything of a dangerous character, or likely to give public inconvenience, or anything which seems to him irregular or offensive, he shall report the same immediately on his return to the station house, with full particulars of the case and his action thereon.”

Reading from the same Exhibit, page 102, Rule No. 37, Subdivision D:

“The commanding officers of precincts are required to faithfully and correctly keep or cause to

be kept at their respective station houses the following books, such books to be kept in accordance with similar books on file at the Chief Clerk's office."

Subdivision 5, under that Section D: "Dangerous place book."

Subdivision 35, under the same section: "Sunken and broken pavement book."

*Q.* Can you state, officer, when such reports are made pursuant to the rules I have just read to the station houses, what is next done with those reports?

*A.* They are all forwarded to the Chief Inspectors' office.

*Q.* Where is that?

*A.* No. 300 Mulberry street.

*Q.* What is done with them then?

*A.* They are entered in a book there and filed away, and packed up and given to me to deliver.

*Q.* Given to you to deliver. Where do you take them?

*A.* To the Corporation Counsel—leave one bunch at the Corporation Counsel's office and the other, duplicates, at the Commissioner of Highways' office.

*Q.* To what official do you deliver the copies that you leave at the Bureau of Highways?

*A.* Chief Clerk's office.

*Q.* How often do you make these deliveries?

*A.* Once each day.

*Q.* For how many years have you been assigned to this work?

*A.* About eight or nine years, something about that.

*Q.* Do you mean to say you have been doing this every day for eight or nine years?

*A.* Yes, sir.

*Q.* For how long a time has copies been delivered to the Corporation Counsel's office?

*A.* That has only been, I guess, about nine months.

*Q.* Prior to that time where were the copies delivered?

A. Delivered only one copy.

Q. That copy was delivered where?

A. To the Bureau of Highways.

Q. Can you state of your own knowledge that for the past nine years such copies have been delivered to the Bureau of Highways daily?

A. Daily.

Q. Have you with you to-day a form of the notice which you have described?

A. Yes, sir, I have it.

Q. May I see it?

A. There is the way they are addressed on the outside.

Q. Is this the form which you file daily with the Bureau of Highways?

A. A copy of the same every day. There is one from each precinct in there.

Q. (Handing paper) Will you identify that particular one? Is that one of the reports?

A. That is the regular form.

Q. That is the regular form?

A. Yes, sir.

Q. Is that one of the reports which you are about to file to-day?

A. That is one of the reports I am to file to-day.

Mr. MITCHEL—I offer that in evidence.

The paper was admitted in evidence and marked "Exhibit No. 97, April 22 1907, C. B."

Mr. MITCHEL—Messrs. Commissioners, as this exhibit must be filed with the Bureau of Highways, I request that the stenographer be directed to spread it at length upon the minutes forthwith.

Commissioner HERTLE—So ordered.

Mr. MITCHEL—I will read it in evidence, Exhibit No. 97, April 22, 1907:

POLICE DEPARTMENT, CITY OF NEW YORK,  
 PRECINCT No. 24,  
 NEW YORK, April 19th, 1907.

Commissioner THEODORE A. BINGHAM:

SIR--The following places are dangerous to life and limb:

Location, Street, No.	Complaint.	Previously recorded date.	Department having jurisdiction.	Whether properly lighted and guarded.
42nd St. & 5th Ave.....	Sunken pavement .....	Apr. 16, '07	D. H.	No
Beekman and Mitchell Place.....	Dangerous sidewalk.....	Apr. 4, '07	D. H.	No

JNO. J. LANTRY,  
 Captain 24th Precinct."

*Q.* Can you say what D. H. stands for?

*A.* I don't know what that stands for; that is their signatures up there.

Mr. MITCHEL—That is all.

MARVIN SCUDDER, recalled for further examination, testified as follows:

*Examined by Mr. MITCHEL:*

*Q.* Mr. Scudder, you testified at the last hearing as to the openings unrestored due to plumbers' cuts and corporation cuts?

*A.* I did.

*Q.* Did your examination show any other openings unrestored, as shown by the books?

*A.* By the records, yes.

*Q.* What openings?

*A.* Vault openings.

*Q.* How many and in what years?

*A.* I have in this case taken records only for the year 1906, which show a total of unrestored openings made for vaults of 76.

*Q.* Have you made a transcript from the record?

*A.* I have, and it is approved by the clerk, Mr. McManus.

*Q.* (Handing paper) Is this that transcript?

*A.* That is.

*Q.* You made it yourself?

*A.* I made it with Mr. McManus.

*Q.* Have you compared it with the records?

*A.* I have checked it off with the records.

Mr. MITCHEL—I offer this in evidence.

The paper was admitted in evidence and marked  
 "Exhibit No. 98, April 22, 1907, C. B."

*Q.* Did you find any other openings unrestored as recorded in the books?

A. I did.

Q. What were they?

A. As I said before, openings from unknown causes.

Q. How many such openings did you find?

A. Only 7 in that case.

Q. Seven which the books showed to be unrestored?

A. Yes, sir.

Q. Did you make a transcript from the record in that case?

A. I did, and it was also approved by Mr. McManus.

Q. (Handing paper) Is this the transcript?

A. That is the transcript.

Q. Did you compare it and check it, as in the other case?

A. I did.

The paper was admitted in evidence and marked  
"Exhibit No. 99, April 22, 1907, C. B."

Q. Did your examination of the books show any other openings not recorded as restored?

A. Yes, sir.

Q. What were they?

A. Fire burns.

Q. Will you describe to the Commission the examination which you made in the case of fire burns and what you found?

A. Owing to the fact that the records in these cases are kept only in notes of the different inspectors, it has been hard to estimate the exact amount of unrestored openings due to fire burns as shown in the records of the department. I spoke to Mr. Goodsell, asking how I had better go about finding the exact figures in this matter, and he produced a letter which had recently been written, and stated to me when he handed me the letter that this represented the unrestored fire burns to date for the year 1906.

Q. To whom was that letter written and by whom was it signed?

A. The letter was written by Chief Engineer George R. Olney to Mr. Otto H. Klein, the Chief Engineer of the Commissioner of Accounts, No. 280 Broadway. It was dated January 14, 1907, and, as I said before, Mr. Goodsell stated that it represented a recent condition.

Q. Did you see that letter?

A. I saw that letter.

Q. Did you examine its contents?

A. I did.

Q. Did you go over that letter with Mr. Olney himself?

A. I went over that letter with Mr. Olney and Mr. Goodsell.

Q. Did Mr. Olney say anything to you as to who had written the letter?

A. He stated to me that he wrote the letter.

Q. What were the contents of that letter?

Mr. MITCHEL. I shall produce the original letter.

A. At my request a copy of this letter was made while I was in Mr. Olney's office by his stenographer. I was present at the time, and I have here a true copy of this letter. I compared it with the original.

Q. I wish you to simply tell us what that letter contains in relation to fire burns.

A. This letter stated——

Q. What is the date of the letter?

A. The letter was dated January 14, 1907. This letter stated that the amount of fire burns, or rather pavement destroyed by bonfires, during 1906 equaled, prior to Election Day, 3,111.5 square yards, and subsequent to Election Day 61,368 square yards. It further gave the distribution according to the guaranty of pavement among the different asphalt companies whose streets contained the holes due to fire burns.

Q. Can you say on what day it was that you examined this letter with Mr. Olney?

A. I cannot exactly say, but it was very near the beginning of my examination in April.



*Q.* Can you fix more exactly the day in April?

*A.* I should say, roughly, the 10th of April.

*Q.* Was anything said as to the condition of those burns at the time of that interview?

*A.* It was stated by Mr. Goodsell at that time that they were unrestored.

*Q.* Unrestored at what time?

*A.* At the time of my making the examination.

*Q.* Which was?

*A.* As near as I can remember, about the 10th of April.

*Q.* Was anything said as to the number of defects or holes which that square yardage represented?

*A.* Yes, this square yardage represented 61,368 square yards since Election, and 3,111.5 prior to Election Day.

*Q.* That is not what I asked. I asked you if anything was said as to how many individual defects or holes this 61,000 square yards represented, and if so, who said it?

*A.* Mr. Goodsell stated to me that 61,368 square yards of unrestored pavement was unrestored at the time, and represented 61,368 holes, approximately.

*Q.* Do you mean by that separate holes?

*A.* Separate holes.

*Q.* Did he say whether or not that represented 61,300-odd separate burns or not?

*A.* He did. He stated that it represented 61,368 separate burns, approximately.

*Q.* Did your examination show that there were any fire burns not recorded as restored other than those concerning which you have just testified?

*A.* Yes, but my finding that out was subsequent to this talk with Mr. Goodsell.

*Q.* What was it that you learned, and how?

*A.* I read this letter carefully, or the copy of this letter, after I had read the original, and it occurred to me that this letter might only refer to streets under guaranty, and I called Mr. Goodsell's attention to that letter, and he said, why, yes, he hadn't thought of that, that it did not represent those not under guaranty.

*Q.* What examination did you then make and what did you find?

*A.* I asked him then how I could ascertain the unrestored fire burns on pavement not under guaranty, and he said that that was a very difficult matter to ascertain, as no records were kept of that, merely the report of the inspector as to whether the Uvalde Asphalt Company were or were not making repairs of fire burns. I asked him if he could not estimate the amount of unrestored fire burns in any way, and he estimated that there were approximately 4,000 which should be added to this of square yards, and also, as he said, separate holes that should be added to this amount, and I have his computation here, and I saw him make this computation.

*Q.* Does that number of 4,000 which you have just named refer to streets not under contract of guaranty?

*A.* It does.

*Q.* You say that that 4,000 square yards or holes is in excess of the number which you mentioned before?

*A.* I do.

*Q.* And on what date were they unrestored?

*A.* Same date.

*Q.* Which was——

*A.* Approximately, April 10, 1907.

*Q.* Have you computed the total number of unrestored defects as recorded on the books of the department from all causes as existing at the time of your examination?

*A.* I have.

*Q.* Will you give us the items and the result of your computation?

*A.* Yes, sir. Plumbers' cuts, 786.

*Q.* Covering what period of time?

*A.* Three years, 1904, 1905 and 1906, as stated in my former examination.

Corporation cuts in asphalt for the years 1904 and 1905, 811; for the year 1906, 1,405. Corporation cuts in granite pavement for the years 1904, 1905 and 1906, 568.

Fire burns, only for the year 1906, up to date, 61,368. Fire burns not under guaranty—those that I last mentioned were under guaranty.

*Q.* You mean the pavements not under guaranty?

*A.* Yes, sir. Those on pavements not under guaranty, 4,000. Those as stated for the year 1906, vaults 76. Unknown causes to date, 7, making a total of 69,021.

*Q.* Sixty-nine thousand and twenty-one what?

*A.* Separate holes.

*Q.* Does that mean the books of the department showed at the time of your examination that the number of defects which you have just mentioned, with the exception of fire burns, existed at the time of your examination?

*A.* The books and records.

*Q.* And your further examination showed the existence of those defects due to fire burns unrestored. Is that correct?

*A.* Yes.

*Q.* Then, how many defects did the records of the department show to exist in the pavements of this borough at the time of your examination?

*A.* Sixty-nine thousand and twenty-one, plus a certain amount of openings made by the Sewer Department and the Water Department.

*Q.* Have you computed the number of those?

*A.* I have not been able to do that. The Water Department makes reports to the Chief Engineer's office, but the records are in such shape that I cannot estimate the number of openings that are not restored, as scheduled by the Chief Engineer's Department.

*Q.* And in the case of the Bureau of Sewers?

*A.* In the case of the Bureau of Sewers, I cannot find any record kept of the openings, but I know of instances in which there are openings unrestored. The vouchers or the bills in those cases that have been sent in by the asphalt companies after making restorations are not sent to the Chief Engineer's office, but sent to the Commis-

sioners of Public Works for filing, so that there is no record in the Chief Engineer's office of the unrestored cuts due to sewer openings that I have been able to find, and I have made careful inquiry.

*Q.* Then, are you able to state that there are openings due to those causes in excess of the total which you have named?

*A.* I am able to state there are openings in excess of that total.

*Q.* Do you mean to state that you have been unable to ascertain——

*A.* I have been unable to ascertain how many in the time I have been working at it.

Mr. MITCHEL—I think that is all for this witness at the present time.

Commissioner HERTLE—The witness is excused.

W. D. LOUDOUN, recalled for further examination, testified as follows:

*Examined by* Mr. MITCHEL:

*Q.* Mr. Loudoun, have you at my request procured from the files of the office of the Commissioner of Public Works contracts for the paving of a portion of First avenue?

*A.* Yes, sir.

*Q.* What portion of First avenue?

*A.* From Thirty-sixth street to Forty-ninth street, Forty-ninth street to Fifty-first street, and Fifty-first street to Fifty-fourth street.

*Q.* Have you those contracts in your possession?

*A.* I have, the official copies.

*Q.* Is this one of those contracts?

*A.* Yes, sir.

*Q.* Which one is that?

*A.* This is Forty-ninth to Fifty-first street.

Mr. MITCHEL—I offer that in evidence.

The WITNESS—It covers other streets.

The paper was admitted in evidence and marked  
“Exhibit No. 100, April 22, 1907, C. B.”

Q. (Showing paper) Is this one of the contracts for the pavement of First avenue?

A. In this book the other two are contained.

Q. I show you this contract and ask you which one it is?

A. This one is First avenue, from Twentieth street to 190th street, which covers all except those portions lying within the limits of grants of land under water. It is a blank contract and covers a great many.

Mr. MITCHEL—I offer this in evidence.

The paper was admitted in evidence and marked  
“Exhibit No. 101, April 22, 1907, C. B.”

Q. Do you say, Mr. Loudoun, that that contract covers First avenue, from Thirty-sixth street to Fifty-first street (referring to Exhibit 101)?

A. It is so stated to me by the contract clerk over there.

Q. Where did you procure these contracts, Mr. Loudoun?

A. From Mr. Lloyd, the chief clerk.

Q. The chief clerk of what office?

A. He got them from Mr. Carragher, who is the custodian of these contracts.

Q. In what office is Mr. Lloyd the chief clerk?

A. Of the Bureau of Public Works.

Q. Do you mean the office of the Commissioner of Public Works?

A. Office of the Commissioner of Public Works.

Mr. MITCHEL—That is all we want from this witness at the present time.

HENRY G. OPDYCKE, called as a witness, being duly sworn, testified as follows:

*Examined by* MR. MITCHEL:

*Q.* Mr. Opdycke, what is your business?

*A.* Civil Engineer and City Surveyor.

*Q.* Where is your place of business?

*A.* No. 92 Liberty street, New York.

*Q.* How long have you been engaged in that business?

*A.* Over fourteen years here in this city.

*Q.* What experience have you had in the practice of your profession during those fourteen years?

*A.* I have been a City Surveyor, making large numbers of surveys through the streets of New York, and representing firms of lawyers as an expert, giving expert testimony in reference to proper lines, conditions of property, streets, and so forth. I am in the employ, to do engineering work, of a number of clients, among whom is the Pennsylvania Railroad for their terminal work.

*Q.* What work did you do for the Pennsylvania Railroad?

*A.* I made the co-ordinate sheets upon which they based the location of the terminal sites in New York City, and some work in connection with Long Island. The New York Central and Hudson River Railroad, I gave them their base lines for their terminal improvement. New York, New Haven and Hartford Railroad, I have done considerable work in different parts, particularly in parts of the city, for their different terminals and yards, and so forth.

*Q.* Have you been engaged constantly in the practice of your profession for the last fourteen years in this city?

*A.* Yes, sir.

*Q.* Have you lately made an examination of the pavements of this borough?

*A.* Yes, sir.

*Q.* At whose request?

A. The Automobile Club of America, whose engineer I am.

Q. How was that inspection made, Mr. Opdycke?

A. A short time ago the Automobile Club of America called upon me to make as careful an inspection of the streets of the Borough of Manhattan as I could, in order to be able to produce my testimony at about this date. I received from various sources the general location to examine, and sent out competent men to specifically examine, taking certain routes. These routes were gathered together constantly for me, and I went over them very carefully in an automobile, stopping at the different specific points which I will testify to, and checking that examination myself, and I have gathered together the notes and am prepared to testify to the conditions.

Q. Now, Mr. Opdycke, I am asking you only as to those sections of the city which you examined yourself.

A. Yes, sir.

Q. Will you outline to us the general districts or zones which you examined?

A. Lexington avenue, Forty-second street south to Fourteenth street, including the side streets from Third to Fourth avenue.

Fourth and Park avenues, Park avenue being a part of Fourth avenue, from Fourteenth street north to Forty-second street, including the side streets to Madison avenue.

Fifth avenue, from 110th street to Thirty-fourth street, and the side streets several hundred feet east and west of the avenue.

Madison avenue, from 125th street to 116th street.

Sixth avenue, from West Third street to Fifty-ninth street, and the side streets on either side.

Seventh avenue, from Thirty-fourth street down to Greenwich avenue, and the side streets on either side.



Amsterdam avenue, from Sixty-fifth street to 146th street, and the side streets on either side.

Broadway, 137th street to Fifty-eighth street, and the side streets on each side.

Convent avenue, 146th and 147th streets.

The Plaza, a collection of ferries, which is commonly so known, at the foot of West Twenty-third street, and the approaches thereto.

Greenwich avenue, which is the street alongside of Jefferson Market, which runs from Sixth avenue to West street.

In the dry goods section, Church street, from Canal to Vesey; West Broadway, from Warren to Canal, and the side streets along those streets in the dry goods section. On the East Side, Park Row and the Bowery, from Broadway to East Houston street; Grand street, from the Bowery to Clinton; East Broadway, Rutgers to Market; Elm street, from Leonard to Canal, and the various side streets for half a block either side of that route. I think that covers practically all I did.

*Q.* About what proportion of the city is covered in these zones which you have described of the borough?

*A.* I cannot answer that question. It would be a small percentage of the Borough of Manhattan. I should say it certainly would be under 25 per cent. I had better withdraw that answer, because I had better figure it, if you want an exact answer.

*Q.* You have not reckoned it yet?

*A.* I have not figured that, no.

*Q.* Were you able to form an estimate, Mr. Opdycke, as to the percentage of pavement within the borough which you examined which was in repair and the percentage which was not in repair?

*A.* Yes, considering the blocks separately, that is, from one street to another.

*Q.* I will change my question and put it in this form: Were you able to form an estimate of the percentage of the blocks within the zones which you examined whose pavement was in a state of repair, and the percentage of blocks whose pavement was not in a state of repair?

*A.* Yes, sir.

*Q.* Will you please state to the Commission what you found, or what estimate you formed?

*A.* A very conservative estimate. I would say that fully 50 per cent. of the blocks were in a decided condition of disrepair, as you use the word. Can I change that answer a little bit? I would say they were out of repair.

*Q.* Will you tell the Commission what you mean by out of repair?

*A.* I would consider a block, the street between two avenues, out of repair when there were located in it holes of more than a foot, roughly, in diameter, and two inches deep, and, say, allowing probably seven or eight such holes to a block. We will say that is reasonably out of repair.

*Q.* Of the blocks which you found to be in a state of repair, did you find any defects in those?

*A.* Oh, yes, minor defects.

*Q.* Then, when you say a state of repair, what do you mean by that?

*A.* Well, I would consider that it would be impossible to have a pavement which had been down any time exactly and perfectly in repair; that is, when I say repair, I mean in a condition to be acceptable from a contractor.

*Q.* Well, will you more specifically describe to the Commission the condition of the blocks, that 50 per cent. which you say you found to be not in a state of repair?

*A.* I will begin at Lexington avenue, according to the route which I have given you earlier in my testimony, and proceed south from Forty-second street. This examination was made by going down the avenue and standing at different places and making observations into each street as we proceeded down.

At Lexington avenue and Forty-second street, on Forty-second street, 100 feet west of Lexington avenue on the north side of the car track there are two holes two feet square to three feet square and three inches deep; inside of one of these holes there is a manhole that stands up two and one-half inches above the block foundation; there are numerous holes along Forty-second street toward Third avenue: the pavement on Lexington avenue, between East Forty-second street and East Thirty-eighth street, is in a wavy, sunken condition, especially adjoining the tracks.

On East Fortieth street, west of Lexington avenue, there is a sunken place four feet square and three inches deep, and also a hole a foot and a half square and three inches deep alongside of a manhole 30 feet west of Lexington avenue.

On Thirty-ninth street there are a number of small holes east of Lexington avenue.

At Thirty-eighth street there are three holes at the intersection.

On Lexington avenue the condition of the track continues very rough, with holes sometimes as deep as five or six inches adjoining the rails.

Thirty-seventh street, east of Lexington avenue, in front of No. 126, a hole two and one-half feet square, two inches deep. At the intersection of the track and Thirty-seventh street there are holes on both sides of the manhole over a foot square, from an inch and a half to two inches deep. On the south side of that street there is a hole two feet square, three inches deep, with the manhole cover standing up in the middle two inches high. There are forty pages of this.

Mr. MITCHEL—Messrs. Commissioners, I would ask you to accept this record in evidence, except that it would be wholly incompetent. The witness made

a personal examination of these spots, and he is testifying from his own personal observation and experience what he saw, and these are merely his notes. I do not think it would be proper to receive this paper in evidence, and therefore I think it is necessary for us to sit through this long record of defects.

The WITNESS—I am not testifying verbatim, these are simply memoranda which give me information to testify by.

Q. This is based on your personal observation, is it not?

A. Yes, sir, I went over every part of this. Below Thirty-seventh street there is a particularly bad condition of the pavement at the track; there are three holes in front of No. 285 Lexington avenue.

Thirty-sixth street, just south of Thirty-sixth street, some of the holes are a foot wide and ten feet long, and from two and one-half to three and one-half inches deep.

At Thirty-fifth street there is a very uneven car track in the centre of a rough granite block pavement; west of Lexington avenue, about 75 feet from the avenue, the asphalt around the manhole is torn away from the north side of Thirty-fifth street; there is a granite pavement south, and on the west side of the avenue, at the junction of the asphalt and granite block pavements, there are bad holes, especially a hole against the curb, the southwest corner, which is four inches deep.

The granite block pavement from Thirty-fifth street to Thirty-second street is very uneven and sunken.

At the intersection of Thirty-fourth street there are two bad holes between the tracks.

Thirty-third street, towards Third avenue, there are several holes two and one-half inches deep and two and a half feet square.

I want to ask a question if you please. Do you want me to indicate as I go along the different characters of obstructions there were there?

*Q.* Yes, I wish you would, as far as possible.

*A.* I have notes of them in some instances.

*Q.* Where you have noted the character of the defect or obstruction, please tell the Commissioners what you found.

*A.* West of Lexington avenue, on Thirty-third street, there is a pile of old railroad iron, timber, and so forth, about ten feet wide; at the intersection of the street there the surface is very rough, there are several holes three inches deep; the pavement down towards Thirty-second street is badly sunken, has a bad hump at a manhole alongside of the east curb, and about 50 feet north of Thirty-second street.

On Thirty-second street, towards Third avenue, we could see more than fifteen holes in the half of the block, and the intersection with Lexington avenue was very rough, the pavement at the car tracks in bad condition; at the intersection of the asphalt and granite block pavement there are holes and rough spots all the way across the street.

On Lexington avenue, about 30 feet south of Thirty-second street, there is a hole opposite the west track fifteen feet long, two and a half feet wide, and from one to three inches deep.

At Thirty-first street, 100 feet west of Lexington avenue, a granite block hump two feet wide, from an inch to six inches high, extending all the way across the street. This is what is known as a granite repair.

Thirtieth street, looking towards Third avenue, there is a large hole in the middle of the block three by five feet in dimensions, three inches deep, and there are over ten holes right in the vicinity of this same hole.

Twenty-ninth street, opposite the horse car track on the Lexington line, there is a hole one by four feet, two and one-half inches deep; on Twenty-ninth street, about 20 feet west of Lexington avenue, there are two granite block repairs beside the car tracks, part of which repairs are above the surface of the street and part of them are below, from three to five inches.

At Twenty-eighth street, on Lexington avenue, there are twenty-one small holes at the intersection of the street and Lexington avenue and Twenty-eighth street.

From West Twenty-eighth street down the west side the pavement is covered with—substantially covered with holes from two to three inches deep.

Twenty-seventh street, about 50 feet east of Lexington avenue, there are several very bad holes at the junction of the block and the sheet asphalt pavements; there is a line of holes about three inches deep. One of them is two feet square, and there is another one three by six feet, and there are eight holes in the car tracks at the intersection.

From Twenty-seventh street to Twenty-third street the tracks have almost a continuous condition of holes, varying from two to three inches, and along the rails they widen out sometimes as much as three or four feet.

Twenty-fifth street—Bad hole in the middle of the block and ten holes in the track at the intersection of Twenty-fifth street and Lexington avenue, and on Twenty-fifth street, about midway between the block towards Fourth avenue, there is a bad hole three inches deep.

Twenty-fourth street, towards Third avenue—There are over fifteen holes in the first half of the block, some of them as much as five feet square and three inches deep.

Twenty-fourth street—West of Lexington avenue there are numerous small holes, and at the intersection of the avenue there are fifteen holes, several of them being between the car tracks.

At Twenty-third street and Lexington avenue there are four bad holes on the line of Twenty-third street beside the tracks. At the centre of the avenue on Twenty-third street there is a hole two by three feet and five inches deep. In all there are nine holes north of the Twenty-third street car track within the lines of this street.

Fifty feet west of Lexington avenue there is a hole beside the manhole two inches deep and about one by two feet.

On Lexington avenue, on the south side of East Twenty-third street, there is a granite block repair three by five feet which stands up above the surface of the street.

Four feet south of the track on Twenty-third street, on the east line of Lexington avenue, there is a granite block repair three by four feet. Both these repairs are in bad condition.

There is another granite block repair twenty-five feet long and two and a half feet wide just south of Twenty-third street.

By a granite block repair I mean, of course, that it is an asphalt pavement where the foundation has been taken up, the earth filled in, and the granite blocks which constituted the foundation are filled in on the top as the street surface and are usually left from two to five or six inches above the surface of the street.

At the northwest corner of Twenty-first street and Lexington avenue there are five holes, one of them two and a half by six feet, and three inches deep. On East Twenty-first street, east of Lexington avenue, there are three holes.

At Gramercy Park West there are seven holes two and a half inches deep; one of them is three by six feet and the rest will average about two by three feet.



On Gramercy Park West, in front of No. 6, there is a bad hole three by seven feet and three inches deep. In front of No. 11 Gramercy Park West there are two holes. In front of No. 13 there is one large hole. In front of No. 14 there are two holes three inches deep; one of them is two by five feet and the other is three feet square. In front of No. 16 there are two holes, and there are four very bad holes in front of No. 18. This is all on one street, Gramercy Park West. Those in front of No. 18 extend all the way across the street, about three feet wide and about three inches to four inches deep.

On Irving place, east line—Irving place is the continuation of Lexington avenue—there is a bad hole two and a half inches deep. From the Hotel Irving 100 feet west there are eighteen very bad holes. Some of these are large. One of them is ten feet long and three feet to five feet wide, and in one place it is six inches deep; and most of the holes are at least three inches deep.

East Nineteenth street—There is a hole at East Nineteenth street, on each side of Irving place, and there are several small holes at the intersection of Eighteenth street.

At Seventeenth street, towards Third avenue, the horse car tracks are almost one continuous line of holes.

On the west line of Irving place there is a large hole opposite the horse car track. There is bad granite block at the trolley crossing.

The asphalt pavement is in bad condition in front of No. 44 Irving place, there being several large holes.

At East Sixteenth street, 30 feet east of Irving place, there is a hole two by three feet and two and a half inches deep, and west of Irving place there is a large hole about the middle of the block.

At East Fifteenth street, on the east line of Irving place, there is a hole two by five feet in dimensions and

two and a half inches deep. There is also a hole at the southeast corner. Twenty feet west of Irving place there are two holes two and a half by three feet and two inches deep. About 12 feet from the west curb, 75 feet south of Fifteenth street, there is a heap of broken asphalt piled from four to six inches high over a hole; that is, the hole has been filled in and the broken asphalt piled on top of it.

The granite block pavement on Fourteenth street is rough, with some places along the track in bad condition.

Beginning at Fourth avenue and Fourteenth street and going north:

The pavement in the car tracks on Fourth avenue, above Fourteenth street, which is a granite pavement other than the car tracks, which are paved with rough granite blocks, 50 feet east of Fourth avenue on Fifteenth street is a hole three by fifteen, two inches deep.

The car tracks on Fourth avenue are very rough for quite a distance north up to Sixteenth street.

At the east line of Fourth avenue at Sixteenth street there are five holes two to four feet square and not less than two and a half inches deep. There are some others scattered over the block.

On Seventeenth street there are quite a number of small but quite deep holes between the car tracks.

West of Fourth avenue there are no less than five bad holes; one in the middle of the car tracks is five feet long and two and a half inches deep, and here is another one four feet square and two and a half inches deep, and still another one beside the manhole which is two by three feet in dimensions and four inches deep, and by reason of the sunken condition of the pavement water stands in considerable quantities at the northwest corner.

On Twentieth street, 50 feet west of Fourth avenue, there is a hole four feet square and five inches deep, and

one about 100 feet west is five feet square and three inches deep, and there are numerous bad holes east of Fourth avenue from two to three inches deep.

On Twenty-first street there are three holes, 50 feet east of Fourth avenue, from two feet square to three feet by seven feet in dimensions and three inches deep. There are holes at the intersection in the pavement and between the car tracks.

On Twenty-second street there are five holes across the street 125 feet west of Fourth avenue. There is a hole five feet by fifteen feet on the line of the walk on the west side of Fourth avenue. There are not less than five holes east of Fourth avenue; one of them on the line of the east walk of Fourth avenue is three by five feet by two and a half inches deep. The track at the intersection is in bad condition, there being a hole along the rail one foot wide and two inches deep—along both rails.

At Twenty-third street, at the intersection of the southbound and westbound tracks, there is a hole one foot square and four inches deep, surrounded by the sharp rails. Between the curved tracks at the northwest corner the pavement is sunken for an area of about three by eight feet.

In front of No. 33 East Twenty-third street there is a bad hump three by five feet which is due to granite block repair. There is also another hump about four feet from the curb on the north side of the street. That ridge is due to the improper repair of an opening in the asphalt, which was repaired with granite block which stands from one to two inches above the pavement.

In front of No. 11 East Twenty-third street there is a hole two feet square and two inches deep.

Near the northeast corner of the curb, between Madison avenue and Twenty-third street, the pavement is badly sunken, causing holes and ridges to a point about six feet

from the curb. There is a bad hole at the southeast corner of Broadway and Twenty-third street, with a man-hole cover standing up in the middle of the hole. And there is a granite block repair in that block forty feet long and approximately three feet wide and from an inch to two and a half inches high.

Between the car tracks at Broadway and Twenty-third street there are numerous holes, one of which is two feet square and three inches deep.

On the east side of Broadway to the east side of Fifth avenue the pavement is obstructed by several plank repairs. These are about four by nine feet and four inches high.

There are two bad holes between the trolley slot and rail about three and a half inches deep at the intersection of Twenty-third street and Broadway.

Then, back to Fourth avenue, there are holes in the pavement between Twenty-third and Twenty-fourth streets.

Twenty-fourth street—There are several bad holes in both directions, east and west of Fourth avenue. One on the east line of Fourth avenue, in the middle of the street, is four by six feet and three inches deep. On the west side there is a considerable area where the asphalt appears to be worn off right down to the block. In front of No. 18, in the centre of the street, there is a hump seven by fifteen feet and three inches high, with simply the loose granite blocks thrown in there. There is a similar spot five by eight feet just ten feet away from it. There is a bad hole two by three feet and four inches deep in front of No. 29 East Twenty-fourth street.

On Fourth avenue there are four bad holes about fifty feet east of South Twenty-fifth street, extending from the track to the curb.

The pavement in front of No. 255 Fourth avenue has a hole five feet square and three inches deep. There are a few bad spots at the intersection of the car tracks due to the sunken granite blocks. The car tracks are in very bad condition at this point.

There are several bad repairs between Twenty-seventh and Twenty-eighth streets, about three feet square.

There are three bad holes in front of Nos. 413 and 415; two of them are three by eight, in the centre line of the block, and three inches deep.

In East Twenty-ninth street, twenty feet east of Fourth avenue, there is a block repair on each side of the horse car track. These are partly raised and partly sunken and very rough. There are two similar places on the west side of Fourth avenue, and one on the south. The one on the south side of the car track is three by four feet and six inches deep. There is a manhole cover and the pavement between the tracks in bad condition at the intersection of these two streets, Twenty-ninth street and Lexington avenue.

At Thirtieth street there are three bad holes right east of Fourth avenue. The pavement between Thirtieth and Thirty-first streets is badly worn in spots.

In East Thirty-first street there are three holes and one badly sunken spot, six feet square, on the line of the walk near the south curb. On the east side there are two or three holes a hundred feet from the avenue.

East Thirty-second street is in a bad condition, due to the holes in the block foundation. This block is practically one mass of holes, and there is one large hole that is over three inches deep.

The east branch of Fourth avenue, which is separated by the beginning of the trolley tunnel, is in particularly bad condition; there are nine large holes in a distance of sixty feet.

At Thirty-third street, west of Fourth avenue, there is a granite block repair four inches above the surface of the street, 85 feet long, and alongside of it there is another granite block repair about a foot and a half wide and two inches high.

Then continuing up Park avenue—On the west branch, we will call it, of Park avenue, there are five or six holes, generally about two feet square and from two to three inches deep. And the east branch is in a similar condition.

There are several bad holes at the intersection of Thirty-eighth street and Park avenue.

Thirty-ninth street—There are six bad holes in the pavement just at the east of Park avenue, and on Park avenue there are several bad holes in the west branch, averaging about two by three feet and about two and a half inches deep.

The intersection of Fortieth street and Park avenue is sunken so as to cause a very rough surface, with one hole which is about six inches deep in which there are four loose paving blocks.

East Forty-first street—There is a sunken place along the east side of the avenue about six feet from the curb, and over near the line of Fortieth street to a manhole standing three inches high in the middle of another large hole. On the east of this manhole the indentation is five inches deep and a foot and a half by three feet in dimensions. There is another badly sunken spot in the centre line of East Forty-first street which is five by twelve feet and varying in depth from one to six inches.

Forty-second street, from the west side of Park avenue towards Third avenue is a granite block pavement in very bad condition; and the tracks in some places stand an inch and a half above the pavement. The condition of the block pavement continues west of Depew place, where

the pavement makes a change to a granite block pavement.

Now take Fifth avenue, beginning at 110th street—

The first two blocks south of 110th street there is an extraordinarily bad condition of affairs—condition of the streets at least. There are at least one hundred holes of various dimensions up to five or six feet square, so that with a skilful chauffeur we were absolutely unable to go ten feet without getting into a hole. Now, that is not a particle of exaggeration. It is very well known; every automobilist who goes up Fifth avenue knows that. And the condition generally down Fifth avenue is bad, particularly the traffic is so heavy, vehicles are one after another so close that they have no opportunity to see the holes. There are blocks where this condition does not exist, north of Fifty-ninth street, but very few.

On Fifty-ninth street the car tracks east of Broadway are in bad condition, and for fifty feet west of the Plaza the asphalt has been removed for some purpose. And beginning one hundred feet west and running to two hundred feet west of Fifth avenue there is a rough dirt surface about ten inches below the car track. On the north side of the street, one hundred and fifty to two hundred feet west of Fifth avenue the pavement has been removed to the tracks and it is covered with asphalt. And opposite a new building there for about two hundred feet there there is not a particle of pavement in the track.

From Fifty-ninth street south to Forty-fifth street there are a few holes.

From Forty-fifth street to Forty-second street there are quite numerous small holes, with one or two large ones, particularly at the corner of Forty-fourth street alongside of the manhole.

At Forty-second street and Fifth avenue, where this complaint was just read this morning, I examined that.



There are four holes in the pavement and two in the track. One hole south of the west bound track is six inches deep alongside the rail, and it is two by three feet. And there is another one four feet east of that two feet by two and a half feet in dimensions and it is four inches deep. And there is another one against the north side of the west bound track four inches deep. And on the west property line there is a hole in the granite block pavement in the west bound track four inches deep. And there are numerous block repairs in bad condition for two hundred feet west of Fifth avenue.

Now, from Forty-second street down to Thirty-fourth street, Fifth avenue has a number of holes, mostly small, but some of them are dangerous on account of their depth, they are three or four inches deep.

West Thirty-fourth street—The asphalt pavement along the south curb of Thirty-fourth street by the Waldorf is sunk in places two inches below the bottom of the walk, and towards Sixth avenue there are several bad holes and granite block repairs, especially on the north side of the street, one hundred and fifty feet east of Sixth avenue, for a distance of thirty feet. That is all I have of Fifth avenue.

Madison avenue from 125th street to 116th street is generally in a bad condition of repair, due to the fact that there are holes along all of the rails of the car tracks, and in most every block there are holes which were caused by excavating for the electrical subway, electrical conduits, which have not been repaired. In some cases those holes are three or four inches deep and run the length of an entire block.

Sixth avenue, beginning at West Third street—

There are several small holes at the junction of West Third street and Sixth avenue.

On the west side there is a ridge of paving block two to four inches high, a foot and a half wide and seven feet long.

On West Fourth street there is a ridge on both sides of the car tracks due to granite block repairs. The car tracks are in bad condition.

There is an excavation on the south side of Fourth street east of Sixth avenue.

There is a bad ridge along Sixth avenue, five feet from the curb, below Washington place, and the blocks have become loosened in this ridge and some of them stand on their end.

There are seven holes on Washington place right near the line of Sixth avenue.

Mr. MITCHEL—Mr. Commissioners, as it is past half-past twelve I move that we adjourn now until two o'clock.

Recess until 2 P. M.

#### AFTER RECESS.

Continuation of the examination of HENRY G. OPDYCKE:

By Mr. MITCHEL:

Q. Mr. Opdycke, will you please continue at the point where you left off before recess.

A. Continuing up Sixth avenue, from Washington place—The ridge of stones above the surface continues along between Washington place and Waverley place, on the west side of Sixth avenue; the pavements of Waverley place on both sides of Sixth avenue are in a bad condition from several bad holes and block repairs. There is also a bad hole at the northeast corner of Waverley place and Sixth avenue, and also one by the tracks on the north side of Waverley place and the east side of Sixth avenue, about twenty feet long, one foot wide and over two inches deep.

At Eighth Street—On Eighth street, near Sixth avenue, there are two bad holes and two block repairs; from Eighth street to Greenwich avenue there are several holes in the pavement.

Ninth Street—Seven feet from the north curb a ridge extends east from Sixth avenue, and there are twelve holes in a distance of less than one hundred feet. Also there are three bad holes in this repair—this block repair. On the opposite side of Sixth avenue, or the east side, there is a ridge nearly six inches high. There are several holes on the east side of the track, one in front of No. 124 Sixth avenue, is two feet wide and eight feet long.

West Tenth street, east side of Sixth avenue, about ten feet south of West Tenth street, there are two plank repairs, four feet by eight feet. These repairs are surrounded by paving blocks about an inch and a half above the pavement. On the west side of Sixth avenue there are two humps caused by filling in the holes with asphalt chips, pieces. These are about four feet square and thirty feet from Sixth avenue.

About seventy-five feet west of Sixth avenue there is a hole around a block repair six by nine feet. The block repair is three and one-half by eight feet, with the asphalt all gone on the east and west sides of it.

Opposite 138 Sixth avenue there is a hole twenty feet by one and one-half feet, three inches deep, along the east side of the track. A manhole cover stands up in about the middle of the street.

In front of 145 there is a hole filled with earth about five inches above the surface of the street and two feet square. There is also a hole opposite the east track, about ten feet by one foot wide and three inches deep. Also on the west side of the track there is a hole four by one foot and three inches deep. The track at this point is in bad condition.

From this point up excavation is being carried on for the subway and is being made by supporting the elevated structure with beams resting on a system of blocking on the pavement along the pillars, and they are commencing to put down shafts apparently to take out the material, with the result that over half of the roadway will be blocked until the use of the shafts is over.

*Q.* Is it blocked now?

*A.* Yes. That is a condition of affairs which exists up to Twenty-eighth street, and there is no system being used about putting down these openings. In several places there is a series of openings for different purposes, which in one case that I noticed particularly entirely blocked the whole width of the street, excepting the car tracks, and the large number of cars going north and south made it a condition of almost perpetual blocking of the street in order to allow the commercial traffic to go through.

At West Eleventh street, east of Sixth avenue, there is an earth filled ditch about two feet wide, with loose cobbles scattered over it. From Sixth avenue there is a wooden repair with its edge in bad condition. These wooden repairs, when put on asphalt, usually consist of four-inch plank, and they are set so as to cover the entire area of the excavation and enough more to cover the cover sufficient bearing surface to hold up the weight of anything that might pass over it, with the result that there is a four-inch obstruction, and the wooden repairs in Sixth avenue are practically of the same nature.

Towards Seventh avenue, this is, on West Eleventh street, nine feet from the south curb there is a ridge a foot and a half wide, standing four feet above the asphalt, and at frequent intervals there are branch ridges extending across the street two feet on each side of the main ridge.

*Q.* When you testified that that ridge stood four feet above the asphalt, did you mean it?

*A.* Excuse me, I beg your pardon. Four inches. On Sixth avenue, on the line of the south curb of West Tenth street to ten feet from the north curb, there is a two-foot ridge in a hole eight by two and one-half feet and three inches deep, and five feet from the north curb and twenty feet west of Sixth avenue there is another wooden repair two by five feet in very bad condition, with a hole six inches wide and three inches deep on the south side, and making the depth from the bottom of the hole to the top of the repair about seven or eight inches. About fifteen feet from the corner on Sixth avenue, over each corner on Sixth avenue, there is a wooden repair four by ten feet raised above the pavement, with a hole around the edge. The worst of this is that the southeast corner, having a hole three and one-half inches deep, seven feet long, four feet wide on the north side. There is a very bad hole on the south side of Eleventh street, near the tracks at the opening in the elevated support, eight feet by one and one-half feet and three inches deep. At this point there is sixteen feet traffic opening between the underpinning of the elevated station called the opening.

The car tracks in the avenue, between Eleventh and Twelfth streets are in very bad condition, there being along the outside rail an almost continuous hole two to three inches deep.

South of West Twelfth street, on both sides of Sixth avenue, there is a wooden repair four by ten feet; there is a bad wooden repair, six feet square, with a hole one foot by three feet and three inches on the east side, situated twenty feet west of Sixth avenue.

*Q.* What do you mean by wooden repair?

*A.* A wooden repair is—I just explained it a short time ago—consists of four-inch planks fastened together over what had been an opening, with enough bearing surface

to keep the vehicle that goes over the top of it from digging down more of the asphalt, but the result of repairing in that way has been that they have not taken enough surface and the asphalt at the edges of this repair has caved in, gone in, probably into the excavation, what was the excavation, and with the result that the rut instead of being a bump four inches high, it has three or four inches more added to it by the depth of the hole in the asphalt.

By Commissioner HERTLE:

*Q.* Who makes these repairs?

*A.* The contractors are supposed to make them, I believe. On the other hand, for instance, the Pennsylvania Railroad excavation, where they applied to the Commissioners, they have a contract which holds them to the performance of certain things, and I understand that in Sixth avenue there has been no effort made to bind these contractors to any specific method of pursuing their excavation.

Mr. MITCHEL—Messrs. Commissioners, I move that that be stricken out of the evidence, because that is merely hearsay and for the purposes of this examination incompetent.

The WITNESS—I was merely answering the question the Commissioner asked me.

Commissioner HERTLE—Strike it out.

The WITNESS—The block between Twelfth and Thirteenth streets is in very bad condition and all the traffic, commercial traffic, is along the car tracks. Just west of Sixth avenue, on Thirteenth street and extending west, there is an excavation in bad condition, badly filled excavation at least, two feet wide, twelve feet from the north curb. It is a continuous line of earth heaped up in places three, four and five inches high. The curb line on Sixth avenue there is a bad granite rock ridge across

Thirteenth street. On the east side of Sixth avenue there is a bad granite block repair, standing in humps six inches above the pavement. From the middle of West Thirteenth street and seven feet from the west curb there is a hole ten feet by two feet and two to three inches deep all the way to the north line of Thirteenth street. Also one on the west rail of the car track about twenty feet long. This is about one and one-half to four feet wide and is four inches deep, with a manhole cover standing up within the lines of it. There are more than ten deep holes beside the track.

There are a large number of holes in Thirteenth street, one especially bad opposite No. 44. It is over three and one-half feet wide and two inches deep, and has a manhole one foot square and two inches high in the centre. There are excavation openings about twenty feet long and twenty-five to thirty feet apart on each side of the "L" pillars, leaving about eleven feet roadway to the curb.

West Fourteenth Street—In front of the Fourteenth Street Store, that is, at the southeast corner, there is a continuous series of holes for a distance of one hundred feet along the car tracks. There are twenty-five of them, two of them five and one-half inches deep and most of the rest three inches deep.

Opposite 29 West Fourteenth street the car tracks are in bad condition.

In front of Hearn's west entrance there is a bad repair around two manholes; the granite blocks in one place are level with the curb and at two points are two inches above the west manhole cover. The other manhole stands on three sides two inches high, with a hole fifteen inches wide between it and the pavement. The excavation openings continue to West Twenty-seventh street.

In the centre of West Fifteenth street, on the east line of Sixth avenue, there is a hole two feet square and three



inches deep. There is a wooden plank repair five by five feet at the north curb, and about fifty feet west of Sixth avenue there are ten manholes, two of them very bad, one being six feet square and two inches deep, and one two by three and one-half feet and four inches deep. The intersection is in poor condition, owing to the planking over the subway excavation.

The block between Fifteenth and Sixteenth streets, save ten feet on the west side, has been planked on both sides of the car tracks. The elevated structure is carried on beams resting on the pavement. The east side and ten feet of the west side are open to traffic.

There is considerable material lying in the block between Sixteenth and Seventeenth streets used in the process of the excavation for the subway. Two manholes between Sixteenth and Seventeenth streets, one near the south curb on the Sixth avenue curb line, twelve feet from the line of West Sixteenth street, for three feet wide around a manhole cover and three inches deep.

Intersection of Seventeenth street and Sixth avenue is in a very bad condition. There is a rough granite rock repair on both sides of Sixth avenue full of holes and gaps. One of them is six inches above the pavement.

West Seventeenth street, west of Sixth avenue, is in bad condition. East of Sixth avenue there is a bad ridge four feet wide and about twelve feet from the north curb due to a granite block paving in a trench which is lumpy and has holes at frequent intervals. This is specially bad near the Sixth avenue line. The west side of Sixth avenue is rough from plank repairs and a few holes, more than five.

West Eighteenth Street—West from Sixth avenue Eighteenth street is in bad condition. It is practically a mud hole, with ridges and lumps of granite sticking up out of the holes. East from Sixth avenue there are sev-

eral holes near the middle of the block. One of the holes is two feet square and three inches deep, is near a plank repair beside the south curb. At Sixth avenue two manhole covers are in bad condition. At the intersection it is in particularly bad condition on account of holes and bad edges of the plank repair over the subway. There is an opening fifteen feet long between the beams supporting the "L" structure.

Nineteenth Street—One hundred and seventy-five feet east of Sixth avenue there are five bad holes, one six feet square and five inches deep, one two feet square and six inches deep. West from Sixth avenue there are at least five bad holes in the centre and two bad block repairs, seven feet by five feet three inches high on the west side of Sixth avenue. The intersection has two granite block ridges two and one-half feet wide and three feet apart. There is a bad hole along the east track, twenty feet by one and one-half feet, three inches deep. Sixth avenue is planked and is partly blocked by excavation on the west side.

West Twentieth Street—There are a few bad holes in both directions from Sixth avenue and a traveler standard on West Twentieth street, west side of elevated railroad. On the east side a bad block repair in a three foot ditch extends across West Twentieth street. On the north there is a bad block repair and a bad cave between the plank repair and the pavement.

Twenty-first Street—There are about twenty bad holes on Twenty-first street, just west of Sixth avenue. The south half of the intersection is obstructed on the side by the power shanty for the traveler. The north half is full of manholes. There are over fifteen holes. There is a heavy rock ridge on the west side running north. There is another travelers' standard at Twenty-second street. At the southeast corner there is a bad block repair ten by fifteen feet.

On Sixth avenue, between Twenty-second and Twenty-third streets, there is an anchorage for the traveler six by nine feet. The cart rack is in bad condition at this place.

West Twenty-third Street—Across Fifth avenue on the north side of West Twenty-third street there is a plank repair seventy-five feet long, five feet wide and four inches high. At the southwest corner, the northwest side of a manhole stands up two inches. West of Fifth avenue, on the north side of West Twenty-second street, there is a pile of dirt forty feet by seven feet by three inches high. Five feet from the north curb of Fifth avenue there is a hole three by two by four inches deep. In front of No. 21, on the north side, is a granite block repair, one side sunk two inches and the opposite side raised two inches above the surface. The size of this repair is two by six and one-half feet. There are over five holes from two to six inches deep and a granite block repair about three inches high at this point. At Sixth avenue there are eight holes two to four inches deep at the southwest corner. At the southeast corner there are three holes. At the northeast corner there is a rough granite repair eight by ten feet and four inches high, running into a hole four inches deep in the sunken granite block pavement by the car track. At this corner and around the "L" pillars the pavement is especially lumpy. This intersection is in about the worst condition of repair of any such place I examined.

Between Twenty-third and Twenty-fourth streets there are more than ten holes from two to four inches deep.

The condition of Sixth avenue continues about the same as to the quantity of holes and repairs up as far as Thirty-fourth street.

At Twenty-seventh street there is a hole four feet square to the block foundation, and bad holes opposite the outer rail of the tracks.

At West Twenty-eighth street there are six bad holes, and three of them are five inches deep and about three feet square, and three of them are four inches deep. At Twenty-eighth street, north of Twenty-eighth street, there are two bad holes three feet square and three inches deep.

At Twenty-ninth street there are twelve holes, two to five inches deep, from one foot square to three by five feet. Two of these holes are in sunken manhole covers.

West Thirtieth street, at the east side of Sixth avenue, there is a block repair fifty feet long, three feet wide, very lumpy and full of holes. There is also a plank repair two and one-half feet by five feet beside the tracks, with a hole six inches wide, four feet deep, all the way around it. Towards Seventh avenue there are holes about two inches deep and three feet square at every twenty-five or thirty feet. Probably fifty holes in this block.

There are three small holes at the intersection of Sixth avenue and Thirty-first street. Car tracks at the intersection of Thirty-second street and Sixth avenue are in a very bad condition, especially along the rails the condition of the pavement is very bad.

At the intersection of Sixth avenue and Thirty-third street there is a bad hole between the tracks four inches deep and some small holes in the pavement. Along Thirty-third street, west from Sixth avenue, there is a lumpy paving block repair, one and one-half feet wide, with loose blocks scattered along Sixth avenue.

Car tracks at the intersection of Thirty-fourth street are in a bad condition, having holes opposite the rail one to two inches deep; there are also a few holes in the immediate vicinity.

At Forty-second street, on the east side of Sixth avenue, fifty feet south of Forty-second street, there is a lunch wagon standing opposite the curb and blocked up

on pieces of plank. There is a bad hole ten feet west of the wagon in the asphalt. The wagon has been there for some time.

At Fifty-second street there are about ten holes along the westerly side of Sixth avenue, leaving the pavement in bad condition.

Between Fifty-second and Fifty-seventh streets there are many holes on the outside rail of the car tracks, over fifty. That finishes Sixth avenue.

Beginning at Thirty-fourth street and Seventh avenue, going south:

In front of Macy's wagon entrance on the north side of West Thirty-fourth street is a sunken place by the curb fifteen feet long, holding over two inches of water.

In front of No. 153 West Thirty-fourth street there is a hole near the car track eight feet long and one foot wide, partly filled with street sweepings.

In front of No. 161 there is a similar hole about four feet square.

At the intersection of Seventh avenue and West Thirty-fourth street it is in a very bad condition. There is a hole between the outer rail and the trolley slot of the east-bound track three inches deep by ten inches long, with a manhole standing up at the middle. Twenty bad holes between that and the corner, ranging from one and a half feet square to two feet square and from two to four inches deep. Opposite the car tracks it is in especially bad condition.

Between Thirty-second and Thirty-fourth streets pavement in Seventh avenue has about twenty bad holes. Some of them as large as five inches deep. These are almost continuous along the edge of the car tracks between Thirty-second and Thirty-seventh streets.

At Thirty-second street is the Pennsylvania Railroad excavation. The pavement on Seventh avenue is in very bad condition, the whole street, and especially on the east side. Thirty-first street resembles a corduroy road. Thirty-first street there is a bad granite block repair three and a half by seven feet on the east side of Seventh avenue. In this block there are some thirty-five holes in the asphalt, varying from one and a half feet square to four by six feet and two or three inches deep. The condition of the paving beside the rail is very bad.

At West Thirtieth street there are eighteen bad holes, some of them three inches deep, this at the intersection. The condition of the tracks at this point is especially bad.

West Thirtieth street, on both sides of Seventh avenue, there are numerous bad holes.

Twenty-eighth to Thirtieth street, on Seventh avenue, an excavation is being made on the west side; the pavement is being repaired with granite blocks.

West Twenty-seventh street, pavement is in very poor condition. The bad condition at Seventh avenue extends south, there being every few feet a large hole in the asphalt three inches deep, four feet square, to the block foundation. In one case, between Twenty-seventh and Twenty-eighth streets, there are five holes in a distance of forty feet, and most of them are very dangerous. This general condition continues to Twenty-sixth street.

On West Twenty-sixth street, east of Seventh avenue, the conditions are very bad, there being fifteen holes within seventy-five feet of Seventh avenue completely through the asphalt to the block foundation and from two to six feet square. On the west side of Seventh avenue, at Twenty-sixth street, there are six holes about two and a half inches deep and a badly repaired spot two by six feet, standing about three inches above the pavement at the centre. Then there are three bad holes, besides several

smaller ones, in the block between Twenty-sixth and Twenty-fifth streets. At two of these holes the manhole covers stand up from an inch to two inches.

West Twenty-fourth street—There is a rough piece of granite rock repairing in the asphalt fifty feet long by three to eight feet wide. There are also five bad holes two or three inches deep, in one of which, three by four feet in dimensions, the manhole cover stands up about two or three inches. Twenty-fourth street, on west side of Seventh avenue, has numerous bad holes. Between Twenty-fourth and Twenty-third streets, there is a bad hole three and one-half by four feet and three inches deep.

Towards Twenty-second street, on the west side of Seventh avenue, there is a granite block repair and a ditch seven feet wide. In this block repair there are some bad humps in about the middle of the block, between West Twenty-third and West Twenty-second street.

At Twenty-second street there is a piece of bad block repair six feet wide and five feet long, very rough and filled with holes; also a few holes on West Twenty-second street.

In front of No. 194 Seventh avenue there are two bad holes near the centre of the street about two feet square and four inches deep.

At the intersection of Second avenue with Twenty-first street the tracks resume again their usual bad condition.

Seventh avenue, below Twenty-first street and just north of Twentieth street, there is a very bad piece of granite block repair, seven by twelve feet, with a hole on the south side about five inches wide and three inches deep.



There are also two bad holes at the intersection of Seventh avenue and Twentieth street, and a bad manhole cover on the West Twentieth street end of Seventh avenue. There are also about ten holes on West Twentieth street, east of Seventh avenue to half way up the block. One is five feet square and about one hundred feet from Seventh avenue.

At Nineteenth street there are several bad holes between the tracks, holding two and a half to four and one-half inches of water. On Nineteenth street there are two holes twenty feet east of Seventh avenue; one of them is four feet by six feet, with a manhole cover standing up nearly two inches in the centre, and there are a number of holes towards Sixth avenue, one being about six feet square and seventy-five feet from Seventh avenue. There is a granite block repair around the manhole at the corner about four feet square, and having two stones standing up on end about two inches above the rest. West of Seventh avenue there are six holes in a distance of forty feet, one of them nearly eight feet square and over two inches deep, besides other holes scattered along the block.

In front of 142 Seventh avenue there are two bad holes two feet square and two to three inches deep, due to bad repair in the asphalt.

Near Eighteenth street there is a badly sunken repair near the car tracks. On Eighteenth street, west of Seventh avenue, under nearly two inches of mud, is a rough granite block pavement, with numerous holes and lumps scattered over it. On the west side of Seventh avenue and West Eighteenth street, towards Eighth avenue, is a rough granite block pavement. On the south side of West Eighteenth street there is an asphalt pavement cut across at intervals by a rough granite block repair. The asphalt at the intersection is badly sunken.

In front of 124-126 Seventh avenue there are two bad holes about two inches deep, two by three feet; car tracks in poor condition.

West Seventeenth street, fifty feet from Seventh avenue, there is a hole two by five feet. There is also an exceptionally bad granite block repair thirty feet long and ten feet wide in the middle of the street. To the east of this there is a bad hole four by six feet, and around the repair is a narrow space about two inches deep. This repair is rough and lumpy.

On Seventeenth street east of Seventh avenue, there are two repairs, one six by twelve feet from the north curb and running towards Sixth avenue, with bad holes extending towards the street centres at intervals. This is especially bad about thirty feet east of Seventh avenue, extending across the street, five feet wide; it is very rough. The car tracks in this block between Seventeenth and Sixteenth streets are in a generally poor condition.

Sixteenth street and Fifteenth street there are several bad holes at the intersection of West Sixteenth street. On the east side of Seventh avenue there are two bad holes in the asphalt. There are four bad holes between the tracks, one of them especially bad near Fifteenth street.

On West Fifteenth street, in both directions from Seventh avenue, there are several bad holes. At the intersection it is in poor condition. Seventh avenue, save for two bad holes in the track, this block is in good condition.

Fourteenth street, between Sixth and Seventh avenues, the block pavement needs repair very much. There are two bad pieces of block repair one hundred feet east of Seventh avenue; one is about four feet square, and one about three feet by six feet. There are also several holes near these, and a bad hole forty feet from Seventh

avenue. The bad condition of the tracks extends beyond Seventh avenue west. There are ten holes in the pavement. At Seventh avenue and Fourteenth street there are a number of holes between the rails, one of these being especially bad.

There is one bad place about five feet in diameter between Twelfth and Thirteenth streets, heaped up about three inches above the pavement with loose earth; that is opposite No. 146.

West Thirteenth street is in bad condition in both directions from Seventh avenue; towards Sixth avenue a width twelve feet from the north curb has been paved with granite blocks. On the west side of Seventh avenue toward Eighth avenue, a four-foot ditch has been filled with earth, leaving a rough space four feet wide and two inches deep. On both sides of the track and extending across Fourteenth street is a filled ditch, in some places two inches above the pavement and in others two inches below. Six feet south of Thirteenth street is a sunken ditch three inches deep, two feet wide, extending from the east curb to the car track.

On the west side of Seventh avenue is a granite block ditch repair, one and one-half feet wide and three inches high. This is in very bad condition and there are numerous holes in the asphalt along the edge of the repair. It extends to West Eleventh street. The car tracks in this block are in bad condition. A similar ridge across Seventh avenue and Twelfth street goes east towards Sixth avenue. On the east side of Seventh avenue Twelfth street is in a very bad condition, there being numerous large holes in the pavement.

At Seventh avenue, between Twelfth and Eleventh streets, there are cross repairs and special repairs around the manhole. At this point there are ten bad holes in a distance of one hundred feet. The car tracks to Eleventh street are in very bad condition.

On West Eleventh street, east of Seventh avenue, there is a block ridge a foot and a half wide, three inches high, with bad holes scattered along it.

That ends Seventh avenue.

We reach Greenwich avenue now. Greenwich avenue is a street that runs from Sixth avenue to West along by the Jefferson Market.

Towards Sixth avenue the car track is in very bad condition, there being numerous bad holes short distances apart. Fifty feet west of Charles street there are two bad holes. There is a bad hole at Charles street two by three feet, one and a half inches deep.

From Charles street to West Tenth street there is a ridge of paving blocks two to four inches high and one and a half feet wide, just about five feet from the west curb. This ridge is very rough and stands up sharply above the pavement; it is all the way from Charles street to West Tenth street.

At Christopher street the ridge on the west side of Greenwich avenue changes to the east side and swings around to the north on Sixth avenue, six inches high at the centre at this point. I have a sketch of it here.

*Q.* Mr. Opdycke, was the sketch made by yourself?

*A.* The sketch itself?

*Q.* Was the sketch made by you personally.

*A.* Yes, this sketch was made by me. This copy is not in my handwriting; I made a sketch and one of my men copied it into here.

MR. MITCHEL— Then I think we will not introduce it.

THE WITNESS— Starting at Amsterdam avenue and Sixty-fifth street and going north.

On Sixty-fifth street, between Columbus and Amsterdam avenue, there are several bad holes, two of them six by twelve feet, and on Amsterdam avenue, from Sixty-eighth to West Seventy-second street the car tracks are almost one continuous line of holes, and there are two of them three by six feet, and most of the holes are about three inches deep.

At West Seventy-second street, on the West side of Amsterdam avenue, from a point fifteen feet north of the south line of West Seventy-second street to ten feet north of the north line, is a hole in the asphalt from one to two inches deep over the granite block foundation, caused by tearing up the east and west tracks of the outside tracks of the abandoned railroad, street railroad; in the west hole there are some loose cobbles and small blocks. On the northeast corner there is a hole eight feet square about five feet from the curb.

At Seventy-third street there are five bad holes about seven feet wide, two of them six feet long and five inches deep, one of these having a manhole standing up four inches. These are at the intersection of Seventy-third street.

Seventy-third to Seventy-sixth street there are more than thirty holes in the asphalt, especially along the west track.

At West Eighty-sixth street there are numerous bad holes in the asphalt, extending north to West Eighty-eighth street.

At Ninety-sixth street and Amsterdam avenue there is a bad ridge between the two eastern tracks four to six inches high.

Ninety-eighth street—On Ninety-eighth street, fifty feet west of the avenue, is a manhole; it stands up three inches.

On Amsterdam avenue, from Ninety-ninth street to 100th street, there are over twenty holes in the asphalt along the west track.

104th to 106th street there are over twenty-five holes. There are many holes along the west and east tracks and a few small ones along the asphalt pavement.

There is a bad intersection at 106th street.

110th to 112th street the granite block pavement is badly ridged.

On 114th street, the west side of Amsterdam avenue, there is a long furrow and ridge, and a bad hole in the track at 116th street.

In the middle of the block between 124th and 125th streets, three feet from the west curb, there is a bad granite block hump about eight inches high.

On Amsterdam avenue at Lawrence street, on both sides of Amsterdam avenue, there are one hundred and thirty holes between Amsterdam avenue and Broadway.

Below 130th street there are numerous holes along the outside of the rail, over twenty.

Seventy-fifth street, seventy-five feet north of 131st street and seven feet from the east corner, there is a man-hole surrounded by granite blocks which stand up five to six inches above the pavement.

Fifty feet south of 132d street there is a similar man-hole that stands up four inches.

Half way between 141st and 142d streets, on the east side of Amsterdam avenue, there is a bad hole three by twelve feet across the street, filled with dirt and having cobbles at the surface.

From 141st street north there are over twenty holes in the block, over two inches deep, especially along the rail.

On Hamilton place there is a bad hole at the junction of the sheet asphalt and the block asphalt pavement, three inches deep, and one to two inches wide. There is also a ridge at this junction along the west line of Amsterdam avenue one to two inches high.

On the north of 142d street, near the centre of Hamilton place, there is a hole two by three feet and four inches deep. About thirty feet south of the south line of West 143d street there is a manhole that stands up two inches, and for the next fifty feet south there are six large holes at least two inches deep. There is a bad hole four inches deep south and west of the manhole, one hundred feet north of West 142d street.

There are two bad holes three and four inches deep on the east side of 142d street.

Hamilton place there is a manhole south of West 142d street in bad condition. There is one especially bad place eighteen feet long and five to eight feet wide, filled with cinders, from two to five inches high.

On the south line of West 143d street, across Hamilton place, fifty feet south of 143d street, eight feet from the west curb, there is a hole three by four feet and five inches deep.

On 145th street there are several bad holes.

Between 145th and 146th streets there are five bad holes.

In the middle of the block there is a bad granite block repair, two and a half feet wide, seven feet long and four and a half inches high. There are also two holes four feet square beside the east curb, fifty feet south of 147th street.

Convent avenue at 147th street, at a point two hundred feet east of Convent avenue, a strip of asphalt two



feet wide has been removed and the broken asphalt scattered along in heaps by the south curb.

146th street and Convent avenue there is a hole thirteen feet wide and fifty feet long at the intersection. This hole runs in a northeasterly direction for another fifty feet and is joined into another hole seven by sixteen feet, and in the centre there is a strip of asphalt a couple of feet wide by fifteen feet long, which sets up three inches. The depth of this hole ranges from two and a half to four inches.

Beginning at a point near the east curb of Convent avenue and the south curb of 146th street there is a ditch a foot and a half wide and an inch and a half deep, which runs down for about one hundred and fifty feet.

Adjourned to Wednesday, April 24, 1907, at 10:30 A. M.

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NEW YORK, April 24, 1907.

Met pursuant to adjournment.

Present — Hon. JOHN C. HERTLE and Hon. JOHN PURROY MITCHEL, Commissioners of Accounts, and Mr. BRUCE and Mr. LITTLETON.

Commissioner HERTLE—Commissioner Von Skal having resigned as Commissioner of Accounts since the last hearing, and Mr. John Purroy Mitchel having since been appointed as Commissioner in his place, that fact will be spread upon the minutes.

*Continuation of the examination of HENRY G. OPDYCKE:*

By Commissioner MITCHEL:

Q. Mr. Opdycke, at page 330 of the record I asked you a question as to whether you had made a certain sketch in person, or whether it had been made by one of your as-

sistants. Will you please begin your testimony at that point and repeat to the Commission that which you testified to from that point on?

A. Yes, the sketch was made by me. This copy is not in my handwriting. I made a sketch and one of my men copied it into here.

Starting at Amsterdam avenue and Sixty-fifth street, going south.

On Sixty-fifth street, between Columbus and Amsterdam avenues, there are several bad holes, two of them six by twelve feet, and on Amsterdam avenue, from Sixty-eighth to West Seventy-second street, the car tracks are almost one continuous line of holes, and there are two of them three by six feet, and most of the holes are about three inches deep.

At West Seventy-second street, on the west side of Amsterdam avenue, from a point fifteen feet north of the south line of West Seventy-second street to ten feet north of the north line, is a hole in the asphalt from one to two inches deep over the granite block foundation, caused by tearing up the east and west tracks or the outside tracks of the abandoned railroad, street railroad. In the west hole there are some loose cobbles and small blocks. On the northeast corner there is a hole eight feet square about five feet from the curb.

At Seventy-third street are five bad holes about seven feet wide, two of them six feet long and five inches deep, one of these having a manhole standing up four inches. These are at the intersection of Seventy-third street.

Seventy-third to Seventy-sixth streets there are more than thirty holes in the asphalt, specially along the west track.

At West Eighty-sixth street there are numerous bad holes in the asphalt, extending north to West Eighty-eighth street.

At Ninety-sixth street and Amsterdam avenue there is a bad ridge between the two eastern tracks four to six inches high.

Ninety-eighth Street—On Ninety-eighth street, fifty feet west of the avenue, is a manhole; it stands up three inches.

On Amsterdam avenue, from Ninety-ninth street to 100th street, there are over twenty holes in the asphalt along the west track.

104th to 106th street there are over twenty-five holes. There are many holes along the west and east tracks and a few small ones along the asphalt pavement.

There is a bad intersection at 106th street.

110th to 112th street the granite block pavement is badly ridged.

On 114th street, the west side of Amsterdam avenue, there is a long furrow and ridge, and a bad hole in the track at 116th street.

In the middle of the block, between 124th and 125th streets, three feet from the west curb, there is a bad granite block hump about eight inches high.

On Amsterdam avenue, at Lawrence street, on both sides of Amsterdam avenue, there are one hundred and thirty holes between Amsterdam avenue and old Broadway.

Below 130th street there are numerous holes along the outside of the rail, over twenty.

Seventy-five feet north of 131st street and seven feet from there is a manhole surrounded by granite blocks which stand up five to six inches above the pavement.

Fifty feet south of 132nd street there is a similar manhole that stands up four inches.

Half way between 141st and 142nd street there is a hole in the asphalt three by seven feet.

Seventy-five feet south of 144th street on the east side of Amsterdam avenue there is a bad hole three by twelve feet across the street, filled with dirt and having cobbles at the surface.

From 141st street north there are over twenty holes in the block over two inches deep, especially along the rail.

On Hamilton place there is a bad hole at the junction of the sheet asphalt and the block asphalt pavement three inches deep and one to two inches wide. There is also a ridge at this junction along the west line of Amsterdam avenue, one to two inches high.

On the north line of 142nd street, near the centre of Hamilton place, there is a hole two by three feet and four inches deep. About thirty feet south of the south line of West 143d street there is a manhole that stands up two inches, and for the next fifty feet south there are six large holes at least two inches deep. There is a bad hole four inches deep south and west of the manhole, one hundred feet north of West 142nd street.

There are two bad holes three and four inches deep on the east side of 142nd street.

Hamilton place, there is a manhole south of West 142nd street, in bad condition. There is one especially bad place eighteen feet long and five to eight feet wide, filled with cinders, from two to five inches high.

On the south line of West 143rd street across Hamilton place, fifty feet south of 143rd street, eight feet from the west curb, there is a hole three by four feet and five inches deep.

On 145th street there are several bad holes.

Between 145th and 146th streets there are five bad holes.

In the middle of the block there is a bad granite block repair, two and a half feet wide, seven feet long and four and a half inches high. There are also two holes four feet square beside the east curb, fifty feet south of 147th street.

Convent avenue at 147th street, at a point two hundred feet east of Convent avenue, a strip of asphalt two feet wide has been removed and the broken asphalt scattered along in heaps by the south curb.

146th street and Convent avenue there is a hole thirteen feet wide and fifty feet long at the intersection. This hole runs in a northeasterly direction for another fifty feet and is joined into another hole seven by sixteen feet, and in the centre there is a strip of asphalt a couple of feet wide by fifteen feet long, which sets up three inches. The depth of this hole ranges from two and a half to four inches.

Beginning at a point near the east curb of Convent avenue and the south curb of 146th street there is a ditch a foot and a half wide and an inch and a half deep, which runs down for about one hundred and fifty feet.

The plaza in front of the ferries at the foot of West Twenty-third street and the approaches thereto.

From West Twenty-second street to Twenty-third street the pavement is rough granite block, badly sunken and lumped, especially near West Twenty-third street. The difference in elevation in some of these places is at least six inches. Opposite West Twtnty-third street, that is at the end of Twenty-third street, the block pavement is especially rough and extends half way to the Pennsylvania ferry. The granite block pavement about fifty feet wide directly opposite the end of West Twenty-third street is full of holes and hollows.

Along the car tracks at West Twenty-third street the granite blocks stand up about two inches and a short distance apart. Near the north line of Twenty-third street and near the middle of the plaza there is a sharp ridge fifteen feet long and six inches high.

From Twenty-third street to Twenty-sixth street the granite block pavement on the east of the plaza is about eighty feet wide and has numerous sunken spots, small holes.

At West Twenty-sixth street the pavement is particularly rough, having many hollows and bumps in it.

West Twenty-fourth street from Broadway to the plaza at the foot of West Twenty-fourth street is in an especially bad condition. The first block, between Broadway and Sixth avenue, is probably in the worst condition of any. Practically the entire south half of the street, the asphalt has been worn or broken out, and as the stores on Twenty-third street, as the shipping entrance of the stores fronting on Twenty-third street are located on this street, the wagons are backed up there, and when it rains it leaves a large number of pools of water, and the day that I went there their horses were standing in water some of them up to their fetlocks.

The next block, and in fact all of the blocks, from Fifth avenue to the ferry, have from fifty to one hundred holes in them; some of them as much as eight inches in depth.

Twenty-fifth street, while not in quite so bad a condition, is still very much in need of repairs.

To my knowledge this general condition has existed, especially in the case of Twenty-fourth street, for over a year, getting worse as time passes.

The wholesale dry goods district—

Canal street—The granite block pavement in Canal street near Church is very badly sunken and ridged, hav-

ing a number of deep holes scattered over it. Twenty feet from the south curb of Canal street, just east of West Broadway, there is a sunken place about forty feet long and three feet wide. Near this are two holes two feet wide by four inches deep.

On the north side of Canal street, opposite Wooster street, there are four bad holes.

In Canal street, fifteen feet from the south curb line and about the centre line of Church street, is a hole near a manhole two and a half feet wide and two inches deep.

Church street from Canal to Vesey has a rough granite block pavement with an abandoned horsecar track, causing a ridge along the center and making the whole side of the street rough and uneven.

At the intersection of Church and Lispenard street there are three bad holes in the horse car track.

In the middle of the block south of Lispenard street the car track rail two feet from the east curb is loose twelve feet on each side of the joint and stands up four inches at the joint.

Walker street has a rough granite block pavement with a furrow two inches deep and four inches wide on each side of the car track, badly worn and sunken in places.

At the intersection with Church street it is very lumpy and rough, due to the condition of the car tracks.

White street has a rough granite block pavement, and towards Broadway is rough and badly sunken.

At the intersection with Church street there is a ridge four inches high along the center of the car tracks and with furrows along both rails.

On the south side of White street a plank repair is being made.



The intersection of Church street with Franklin street is very rough, especially along the car track. West of the car track is a manhole sunk about two and a half inches below the surface of the street, and on the east side of the car track there is a manhole cover lying about an inch and a half below.

Lispenard street has a granite block pavement, and at the intersection with Church street it is very badly ridged. There is a bad hole near the rail two inches deep. There is also a sunken manhole in the center.

At the northeast corner is a sunken place twelve feet long in which water stands about two or three inches deep.

About half way from Church street to Broadway is a hole four feet wide and about four inches deep having about two inches of water standing in it.

At the northeast corner of Worth street and Church street is a hole near a manhole in the car tracks two and a half feet square and four inches deep.

At the entrance of the sewer basin at the northeast corner is a hole in which a couple of inches of water stand.

On Thomas street 100 feet east of Church street the granite block pavement is very rough and bumpy. There is at the intersection of Church street and Thomas street a very rough condition caused by a ridge in the center of the car track.

One hundred feet east of Trimble place the pavement is badly sunken and very rough.

At the intersection of Duane and Church street there are three bad holes three inches deep, besides which the granite block pavement is very rough and bumpy.

At the southeast corner alongside the catch basin is a hole six inches deep with three inches of mud and water standing in it. It is a foot wide and about six feet long.

About seventy-five feet west of Church street on Reade street, there is a hole in the wooden block pavement two feet square and four inches deep, and a pile of dirt about two feet square on the south side of it.

At the intersection of Chambers street and Church street the granite block pavement is very rough and badly sunken.

There is a hole at the curb at the southwest corner several feet square and two inches of water standing in it.

Church street at this point is very rough and badly ridged and has a number of holes over the block.

Warren street, ten feet east of Church street, there is a manhole in the wooden block pavement in the center of the street in a hole about four feet wide and two inches deep, due to the sinking of the pavement.

At the intersection with Church street there are seven bad holes and sunken places; on the south side the granite block pavement is raised in places six inches above the general surface.

At the south side of Warren street there is a plank repair three and a half feet by twelve inches wide and two inches high. Some of the planks are loose. And the pavement in the middle of the block is very badly sunken.

Murray street, about the center of the intersection with Church street, there is a wooden repair seven by twelve feet, and there is a furrough four inches deep there along the west rail of the car track.

At the intersection of the car tracks at Church street and Park place there is a hole three inches deep and three

feet square. The northeast corner of the granite block pavement is in bad condition.

Thirty feet east of Church street on Park place there are two hydrants with four guard posts above them right between the car tracks. It is not a hole but it is a very serious obstruction.

At the intersection of Barclay street and Church street the granite block pavement is in a particularly bad condition.

At Vesey street—I have nothing to say about Vesey street.

West Broadway, Warren street, the intersection opposite the east rail and the car tracks three feet long, eight inches wide and two inches deep, a hole.

From Chambers street to Barclay street on West Broadway the car tracks are paved in granite blocks, and are in a very bad condition, full of wagon ruts and holes, the average of which is about three inches deep below the surface of the street.

On Leonard street there are a number of small holes in the rough granite block pavement east of West Broadway.

West Broadway, ten feet north of Leonard street, beside the east rail of the car tracks there is a hole around a manhole cover four feet square with a manhole cover standing up nearly two inches above the lower surface.

Franklin street, the granite block pavement east of West Broadway is very badly sunken.

On White street the granite block pavement is sunken, especially a distance east of West Broadway.

Walker street, the granite block pavement is badly sunken and ridged, the horse car track in the center, and

there is a bad hole four by eight feet with an inch and a half of water standing in it at the northeast corner.

East Side—Park Row and the Bowery from Brooklyn Bridge north have a rough granite block pavement badly sunken and ridged in a large number of places.

Just south of Doyer street on the west side of the car tracks there are three ridges right successively about a foot wide and 200 feet long with furrows from two to three inches deep.

Bayard street 150 feet east of the Bowery there are six holes about two and a half inches deep.

On Hester street there is a hole twenty feet west of the Bowery three feet square and four inches deep.

Broome street at the southeast corner of the Bowery there are several holes three feet square and two inches deep, also three bad holes two inches deep thirty feet east of the Bowery.

On East Fourth street there are ninety-seven holes between the Bowery and Second avenue, some of them six feet square and from two to three inches deep.

At Second avenue there are six bad holes, and practically the same condition continues on east of Second avenue.

The pavement between the car tracks at Second avenue is in bad condition.

East Houston street, from Forsythe street east is practically full of holes some of them four inches deep and from three to six feet square, the majority of the deep holes begin at the car tracks and some of them extend as much as five feet towards the curb where the pavement has been torn away by the trucks.

Grand street. At Chrystie street there are several bad holes.

Eldridge street, south of Grand street has fifty-four holes in the block between Grand and Hester.

Continuing south most of the holes are bad and at least two inches deep and from two to five feet square.

At the intersection of Hester street there is a hole forty feet long and four feet wide.

On Grand street on the north property line at the center of Eldridge street there is a bad hole three feet by five feet, with six loose granite blocks in it, and a man-hole four inches high on the north side of it.

The same conditions exist north of Grand street.

Allen street, Orchard street and Ludlow street, from Grand street to Division street are practically in the same condition.

Norfolk and Suffolk streets are also in a bad condition, although not quite so bad as the streets to the east.

East Broadway. Rutgers street between East Broadway and Henry street, there are forty holes in the asphalt, all of them are from two to three inches deep, and one is ten feet square and one is five feet by twenty feet, and another is five feet by thirty feet.

Essex street, in 100 feet north of East Broadway there are five holes in the pavement and five in the car tracks. Twenty feet north of Hester street there is a hole three feet wide and four feet long and it extends three feet west of the car track. At the rail or adjoining the rail this hole is eight inches deep.

On Market street from Madison to Monroe there are thirty-seven bad holes from two to four inches deep, some are six feet wide and twenty feet long, practically all the way across the street.

Elm street to Leonard street, the southeast corner of Elm street, there is a manhole surrounded by granite blocks raised four inches above the pavement.

Franklin street, west of Elm street, there are five manholes standing up from one inch to two and a half inches; beside one of these manholes there is a hole four and a half feet long and three and a half inches deep.

Between Franklin and White streets there are thirty holes in the pavement and seven in the car tracks. Some of these are three inches deep and three feet square.

*Q.* Does that complete your notes, Mr. Opdycke?

*A.* Yes, sir.

*Q.* On what dates was the inspection made upon which those notes are based?

*A.* The inspection began on the 12th of this month, the 12th day of April, this year, and continued until Saturday night last.

*Q.* In the course of that inspection did you notice any condition which you considered dangerous to traffic?

*A.* I certainly did, a very great many of them.

*Q.* What proportion of those defects which you have described did you consider to be of a character dangerous to traffic?

*A.* I should say fully 50 per cent of them.

*Q.* Did you form any general impression as to the general condition of the pavements which you inspected?

*A.* I was very much surprised to find the condition of the streets as bad as it was.

*Q.* Can you more definitely describe or characterize it?

*A.* I noticed in examining these defects that very frequently we were held up by the street being blocked by reason of trucks, and in one case an automobile was stuck in these holes in the street, especially Twenty-fourth street; that impressed me as being in a very serious condition. While driving down that street the car that I was riding in, which was in the charge of a skillful chauff-

feur, it was absolutely impossible for him to navigate more than twenty-five feet without getting into a hole. And near Eleventh avenue we went into a hole with some water in it, and it threw the person who was sitting alongside of me right over into my lap, and there was quite a noise on the springs and the men got out expecting to find the springs broken, but fortunately they were not.

*Q.* Well, how would you generally characterize the condition of the streets, as good, fair or bad?

*A.* Very bad.

Commissioner MITCHEL---I think that is all, Mr. Opdycke.

Commissioner MITCHEL -Mr. Stenographer, the Commission directs you to spread at length upon the minutes the following extracts from the exhibits:

From Exhibit No. 92, on page 20, Paragraph AA, Exhibit No. 92 being the form of contract, as testified to by a witness, now in use by the Bureau of Highways for paving or repaving with asphalt pavement:

“The Contractor herewith executes, with two sufficient securities, a bond to indemnify and save harmless The City against and from all suits and actions of every nature and description arising out of any claims by patentees of any process connected with the work, or any material used upon the work, as well as for the performance and completion of this contract, which bond shall be in the sum of  
Dollars, attached to this agreement.”

Reading from the same exhibit, Paragraph BB:

“The Contractor shall immediately repair and make good to the satisfaction of the Engineer, any disintegration, cracks, bunches, levees or settlement or any depression in pavement that shall measure

more than three-eighths ( $3/8$ ) of an inch from the under side of a straight edge four (4) feet long, which shall occur at any time during the period of five years from the date of the acceptance of the whole work, when notified so to do by the President by a written notice served on him, either personally or by leaving said notice at his residence or with his agent in charge of the work; and in case of failure or neglect on his part so to do within forty-eight hours from the date of the notice, then the President shall have the right to purchase such materials as he shall deem necessary, and to employ such person or persons as he shall deem proper, and to undertake and complete said repairs and to charge the expense thereof against any sum of money retained by the City, as herein provided, or to the Contractor and his sureties, and the Contractor or his sureties shall pay all such expenses to which the President may have been put by reason of the neglect of the Contractor to make such repairs as aforesaid."

Reading from the same exhibit, Paragraph DD:

"During the period of maintenance the Contractor shall within five (5) days after the receipt of notice so to do, restore the pavement over all openings made by corporations or plumbers for making new service connections, or repairing, renewing, or removing the same, and over all trenches made for carrying sewers, water or gas pipes or any other sub-service pipes or conduits, for the building or laying of which permits may be issued by the President, for the sum of \$3 per square yard for all openings less than ten (10) square yards in area, and \$2.50 per square yard over all trenches measuring more than ten (10) square yards in area."

Reading from Paragraph II:

"The Contractor will not be entitled to demand or receive payment for any portion of the work or ma-



terials unless the same shall be fully completed in the manner set forth in this contract and specification, and such completion shall be duly certified by the Chief Engineer of the Bureau of Highways, and until each and every one of the stipulations hereinbefore mentioned are complied with, and the work completed to the satisfaction of the President, and accepted by him, and the final certificate of the completion and acceptance thereof, signed by the President and Chief Engineer, be filed with the Comptroller; The City will pay, and hereby binds itself to pay to the Contractor in cash, on or before the expiration of thirty days from the time of the completion of the work and the filing in the office of the Comptroller of said final certificate,                      per cent. (    %) of the moneys accruing to the Contractor under this contract, the remaining    (    ) per cent. of the total cost of the work being retained for twelve (12) months after the acceptance of the work by the Borough President. Within thirty days after the expiration of the said twelve (12) months, provided the pavement shall at that time be in good condition, and provided any defects which may develop shall have been remedied, The City, upon the filing of the certificate of the Engineer, as by law provided, that the terms of the contract have been complied with, will pay to the Contractor the whole of the sum retained, or such part thereof as may remain after the expenses of making repairs in the manner aforesaid shall have been paid therefrom, but the bond executed by the Contractor and sureties to insure the performance of this contract shall remain in full force and effect until the President shall have been reimbursed for the total expense of any and all repairs which have been made by the City, as herein provided. During the said period of twelve months the Contractor expressly guarantees the pavement against all defects, such guarantee so secured by the

retention of the said ( ) per cent. to be a separate and distinct guarantee from the guarantee of such pavement secured by the bond executed by the Contractor and sureties."

Exhibit No. 93, which, as testified to by a witness, is the form of contract in use by the Bureau of Highways for the regulating, grading and paving or re-paving with asphalt block.

The Commission directs the stenographer to note that Paragraph AA of this exhibit is practically identical with the Paragraph AA of the exhibit just read; also that Paragraph BB of this exhibit is practically identical with Paragraph BB of the exhibit just read.

Paragraph DD of this exhibit is as follows:

"During said period of maintenance the Contractor shall take up, lay and restore, upon forty-eight hours' notice, the pavement over trenches made for laying water and gas pipes, sewers, or for other purposes permitted by the President, and over breaks or injury, the result of accident or fire, at the contract prices per square yard in accordance with the terms of these specifications; and when once so laid and restored, he shall maintain the same in the same state of repair as agreed to for other parts of the pavement and shall not demand additional or further payment on account of injury or sinking of the pavement so laid and restored. In case the Contractor fails to lay and restore the pavement as aforesaid, the President shall, without further notice, procure labor and materials and lay and restore the pavement at the expense of the Contractor."

Paragraph JJ of Exhibit No. 93 is as follows:

"The Contractor will not be entitled to demand or receive payment for any portion of the work or materials unless the same shall be fully completed

in the manner set forth in this contract and specification and such completion shall be duly certified by the Chief Engineer of the Bureau of Highways, and until each and every one of the stipulations hereinbefore mentioned are complied with, and the work completed to the satisfaction of the President, and accepted by him, and the final certificate of the completion and acceptance thereof signed by the said Chief Engineer and President, shall be filed with the Comptroller; whereupon The City will pay to the Contractor, in cash, on or before the expiration of thirty days from the time of the completion of the work and the filing in the office of the Comptroller of said final certificates the whole of the moneys accruing to the Contractor, under this contract, excepting such sum or sums of money as may be lawfully retained under any of the provisions herein contained for that purpose, or in any law of the State, or under any ordinance of The City passed prior to the date of this contract and now in force or until all the provisions of this contract shall have been complied with."

Exhibit No. 94 is, as testified by the witness Scudder, the contract with the Uvalde Asphalt Paving Company for repairing and maintaining asphalt pavements in the Borough of Manhattan, together with the work incidental thereto, bearing date April 18, 1906, and I read from said Exhibit No. 94 Paragraph AA:

"The Contractor herewith executes, with two sufficient securities, a bond to indemnify and save harmless The City against and from all suits and actions of every nature and description arising out of any claims by patentees of any process connected with the work or any materials used upon the work, as well as for the performance and completion of this contract, which bond shall be in the sum of Forty thousand dollars attached to this agreement."

“(BB) The Contractor shall immediately repair and make good to the satisfaction of the Engineer, any disintegration, cracks, bunches, levees or settlement or any depression in the pavement that shall measure more than three-eighths (3/8) of an inch from the under side of a straight edge four (4) feet long, which shall occur at any time during the period of one year, when notified so to do by the President by a written notice to be served on him, either personally or by leaving said notice at his residence or with his agent in charge of the work; and in case of failure or neglect on his part so to do within forty-eight hours from the date of the notice, then the President shall have the right to purchase such materials as he shall deem necessary, and to employ such person or persons as he shall deem proper, and to undertake and complete said repairs and to charge the expense thereof against any sum of money retained by The City, as herein provided, or to the Contractor and his sureties, and the Contractor or his sureties shall pay all such expense to which the President may have been put by reason of the neglect of the Contractor to make such repairs as aforesaid.”

“(DD) During the period of maintenance the Contractor shall, within forty-eight hours after the receipt of notice so to do, restore the pavement over all openings made by corporations or plumbers for making new service connections, or repairing, renewing, or removing the same, and over all trenches made for carrying sewers, water or gas pipes or any other sub-surface pipes or conduits, for the building or laying of which permits may be issued by the President, and over breaks or injury, the result of accident by fire, at the contract prices per square yard in accordance with the terms of these specifications; and when once so laid and restored, he shall maintain the same in the same state of repair as

agreed to for other parts of the pavement and shall not demand additional or further payment on account of injury or sinking of the pavement so laid and restored. In case the Contractor fails to lay and restore the pavement as aforesaid, the President shall, without further notice, procure labor and materials and lay and restore the pavement at the expense of the Contractor."

"(JJ) The Contractor will not be entitled to demand or receive payment for any portion of the work or materials unless the same shall be fully completed in the manner set forth in this contract and specification, and such completion shall be duly certified by the Chief Engineer of the Bureau of Highways, and until each and every one of the stipulations hereinbefore mentioned are complied with, and the work completed to the satisfaction of the President, and accepted by him, and the final certificate of the completion and acceptance thereof, signed by the President and Chief Engineer, be filed with the Comptroller; The City will pay, and hereby binds itself to pay, to the Contractor in cash, on or before the expiration of thirty days from the time of the completion of the work and the filing in the office of the Comptroller of said final certificate; whereupon The City will pay, and hereby binds itself, if the Board of Estimate and Apportionment shall have appropriated the money for the purpose, to pay, to the Contractor, in cash, between the first and tenth days of each month, seventy (70) per cent. of the total amount earned during the preceding month, except that in case the amount so earned in any one month shall be less than the sum of fifteen hundred dollars (\$1,500), no payment shall be made until the first of the next month, or until the total amount earned since the last preceding payment shall be at least fifteen hundred dollars (\$1,500), and the balance of

the moneys that may be due to the Contractor under this agreement shall be paid to the Contractor within thirty days after the expiration of this contract, excepting such sum or sums of money as may be lawfully retained under any of the provisions herein contained for that purpose, or in any law of the State, or under any ordinance of The City passed prior to the date of this contract and now in force, or until all the provisions of this contract shall have been complied with."

I read from Exhibit No. 95, which is the contract with the Uvalde Asphalt Paving, bearing date the 10th day of September, 1906, for repairing asphalt block pavements in the Borough of Manhattan, together with the work incidental thereto:

"(AA) The Contractor herewith executes, with two sufficient securities, a bond to indemnify and save harmless The City against and from all suits and actions of every nature and description arising out of any claims by patentees of any process connected with the work or any material used upon the work, as well as for the performance and completion of this contract, which bond shall be in the sum of Seven thousand dollars attached to this agreement."

"(CC) During the period of this contract the Contractor shall, within five days after the receipt of notice so to do, restore the pavement over all cuts made by corporations or plumbers or builders for making new service connections, or repairing, renewing, or removing the same, and over all trenches made for carrying sewers, water or gas pipes or any other pipes or conduits or vaults for the building or laying of which permits may be issued by the Borough President, and over breaks or depressions, at the contract prices per square yard in accordance with the terms of these specifications. In case the

Contractor fails to lay and restore the pavement as aforesaid, the Borough President shall, without further notice, procure labor and materials and lay and restore the pavement at the expense of the Contractor."

You will note, Mr. Stenographer, that Paragraph FF of this Exhibit No. 95 is practically identical with Paragraph JJ of the exhibit last read.

Also note that in the case of Exhibit No. 100, which is a contract with the California Asphalt Company for the regulating and paving with asphalt pavement First Avenue between Twenty-eighth and Thirty-third streets, Forty-ninth and Fifty-first streets, Fifty-fourth and Fifty-sixth streets, Sixtieth and Sixty-first streets, Seventy-second and Seventy-fourth streets, Eighty-third and Eighty-fourth streets, Eighty-fifth and Eighty-sixth streets, and Ninety-first and Ninety-second streets, Paragraph 14-A of the specifications provides as follows:

"And it is further agreed that if at any time during the period of fifteen years from the date of the acceptance by the Commissioner, in the case of the asphalt pavement, and two years in the case of the stone block pavement, of the whole work under this agreement, the said work or any part or parts hereof in the opinion of said Commissioner require repairs or sanding as provided for in Section 8, or the surface of the pavement shall have any cracks, bunches, holes or depressions that shall measure more than one half inch from the under side of a straight edge four feet long laid on the surface, and the said Commissioner shall notify the said party of the second part to make the repairs or do the sanding as required, by a written notice to be served on the contractor either personally or by leaving said notice at his residence or with any of his agents in charge of the work or employees found on the work; the said



party of the second part shall immediately commence and complete same to the satisfaction of said commissioner, and in case of failure or neglect on his part so to do within twenty-four hours from the date of the service of the aforesaid notice, then the said Commissioner of Public Works shall have the right to purchase such materials as he shall deem necessary and to employ such person or persons as he may deem proper, and to undertake and complete the said repairs or sanding and to pay the expense thereof out of any sum of money due the contractor or retained by the said party of the first part as hereinafter mentioned. And the said parties of the first part hereby agree, upon the expiration of the said period of fifteen years or two years, provided that the said work shall at that time be in good order, or as soon thereafter as said work shall have been put in good order to the satisfaction of the said Commissioner, to pay to the said party of the second part the whole of the sum last aforesaid or such part thereof as may remain after the expenses of making the said repairs in the manner aforesaid shall have been paid therefrom. And it is further agreed between the parties hereto that if the termination of said period of fifteen years or two years after the completion and acceptance of the work done under this agreement shall fall within the months of December, January, February or March, then and in that case said months of December, January, February and March shall not be included in the computation of said period of fifteen years or two years, during which the work is to be kept in repair by the contractor as aforesaid, and also in that case the payment to be made under the provisions of this paragraph shall not be made before the 15th of April next thereafter, unless otherwise specially permitted by the Commissioner of Public Works."



The Commission directs the stenographer to note that Paragraph 23 contains provisions practically the same in the case of retained percentages as those provided for in the last exhibit read.

Reading from page 24:

"Know all Men by these Presents, That We, The California Asphalt Company, Fidelity & Deposit Company of Maryland and United States Guarantee Company of the City of New York, are held and firmly bound unto the Mayor, Aldermen and Commonalty of the said City in the sum of \$12,000 lawful money of the United States of America, to be paid to the said Mayor, Aldermen and Commonalty or to their certain attorneys, successors, or assigns; for which payment, well and truly to be made, we bind ourselves, our successors and our several and respective heirs, executors and administrators, jointly and severally, firmly by these presents.

"Sealed with our seal. Dated this 8th day of September, one thousand eight hundred and ninety-six.

"Whereas, the California Asphalt Company, by an instrument in writing, under their corporate seal, and duly attested, bearing even date with these presents, has contracted with the said Mayor, Aldermen and Commonalty to furnish all the materials and labor, and in a good, firm and substantial manner, regulate and pave with asphalt pavement on the present pavement, and when granite or syemite is used upon a concrete foundation, the carriage way of First avenue between Twenty-eighth and Thirty-third streets, Forty-ninth and Fifty-first streets, Fifty-fourth and Fifty-sixth streets, Sixtieth and Sixty first streets, Seventy-second and Seventy-fourth streets, Eighty-third and Eighty-fourth streets, Eighty-fifth and Eighty-sixth streets, and Ninety-first and Ninety-second streets, and also lay and relay

cross walks and set and reset curb stones where required, and lay and relay cross walks and set and reset curb stones.

"Now, therefore, the conditions of the above obligation are such that if the said abovebounden California Asphalt Company or their successors or assigns shall well and truly and in a good, sufficient and workmanlike manner, perform the work mentioned in the aforesaid agreement, in accordance with the terms and provisions therein stipulated, and maintain the said work in good condition, to the satisfaction of the Commissioner of Public Works, his successor or successors, for the period of fifteen years in the case of asphalt pavement and two years in the case of block pavement on concrete foundation, from the final completion and acceptance thereof, and in each and every respect comply with the conditions and covenants in the aforesaid agreement contained, and shall indemnify and save harmless the said Mayor, Aldermen and Commonalty of the City of New York against and from all suits and actions of every name and description arising out of the claim or claims of any person or persons claiming to be patentees of process connected with the work agreed to be performed under the said contract, or of any material or materials used upon the said work, then this obligation to be void, otherwise to remain in full force and virtue.

"Signed and sealed in presence of.....

(Executed) California Asphalt Company, by John D. Crimmins, Jr.

Fidelity & Deposit Company of Maryland, by Henry B. Platt; attested, John W. Wooten, attorney.

United States Guarantee Company, by C. A. Cannon, Vice-President; Daniel J. Tompkins, Secretary."

Exhibit No. 101, contract held by the Warren-Scharf Asphalt Paving Company, for regulating and paving with asphalt pavement on the present pavement the carriage way of First avenue from Twentieth to 109th street, except as otherwise stated therein, on page 9, specification:

“For laying an asphalt pavement on the present pavement in First avenue from Twentieth to 109th street, excepting those portions lying within the limits of grants of land under water, also between Twenty-sixth and Twenty-eighth streets, where already paved with asphalt, and between Twenty-eighth and Thirty-third streets, Forty-ninth and Fifty-first streets, Fifty-fourth and Fifty-sixth streets, Sixtieth and Sixty-first streets, Seventy-second and Seventy-fourth streets, Eighty-third and Eighty-fourth streets, Eighty-fifth and Eighty-sixth streets, and Ninety-first and Ninety-second streets, and also lay and relay cross walks and set and reset curb stones where required.”

The Commission directs the stenographer to note that Section 14A of this exhibit is practically indential with that of 14A of the last exhibit read.

Also that paragraph 23, page 20, contains similar provisions as to retained percentages to those contained in paragraph 23 of the exhibit last read.

The Commission also directs the stenographer to note that on page 24 appears the bond in the sum of \$50,000, executed by the Warren-Scharf Asphalt Paving Company, Fidelity & Deposit Company of Maryland, United States Guarantee Company, containing provisions identical with those of the bond in the case of Exhibit 100 last read.

In this connection the Commission also directs the stenographer to note the provisions of Section 422 of the

Greater New York Charter, which are in part as follows:

“When a contract for a public improvement shall have been entered into and a certified copy thereof shall have been filed with the Comptroller, in conformity with section 419 of this Act, said Comptroller is hereby authorized and directed to pay to the contractor or his assigns from time to time as the work progresses, seventy per centum of the estimated value of the work actually done under said contract, until the same shall have been completed. The estimate of the value of any such work shall be signed by the surveyor and also by the chief engineer of the department having the matter in charge, and upon the final completion of any contract, and the filing of the final certificate of completion, the Comptroller shall, within thirty days thereafter, or within thirty days after the expiration of the time within which, according to the terms of the contract, the City has to accept such work, pay to the contractor or his assigns, the balance of the amount due under said contract, provided, however, that the Board of Aldermen, upon the recommendation of the Board of Estimate and Apportionment, may authorize contracts for asphalt or other pavements to be made, with a guaranty upon the part of the contractor for one or more years, with a provision for the retention of a percentage of the amount to be paid, which shall be paid within thirty days after the expiration of the guaranty, upon the filing of a certificate signed by the chief engineer of the department having the matter in charge that the terms of the contract have been complied with.”

Sections 365 and 366 of the Revised Ordinances of 1897 provide as follows:

“Section 365. In all contracts for work done at the expense and by the said Mayor, Aldermen and

Commonalty for the more speedy execution of any by-laws, ordinances, orders, or directions of the said Mayor, Aldermen and Commonalty, and which by any law the said Mayor, Aldermen and Commonalty are authorized to collect by assessment or otherwise from the owners or occupants, lessees or parties interested in any property deemed benefited thereby, provisions shall be made for the payment of the amount of said contract, on the completion of the work, to the satisfaction of the department making such contract.

“Section 366. It shall be lawful for the department making any contract of the character mentioned in the preceding section of this chapter to make provision for the payment to any contractor of installments on account of such work, as the same progresses, reserving thirty per cent. of the contract price of the work actually done, to remain as security till the whole work be completed according to the contract.”

Section 518 of the Revised Ordinances of 1906 provide:

“In all contracts for work for The City of New York where provision is made for the payment of the contract price by installments, a provision shall be inserted that the contractor shall allow ten per cent. of the contract price of the work actually done to remain as security till the whole work shall be completed according to the contract.”

And the provisions of Section 419 of the Greater New York Charter are in part as follows:

“In case any work shall be abandoned by any contractor, it shall be readvertised and relet by the appropriate borough president or the head of the appropriate department in the manner in this section

provided. No bid shall be accepted from, or contract awarded to any person who is in arrears to The City of New York upon debt or contract, or who is a defaulter, as surety or otherwise, upon any obligation to the City."

PATRICK F. O'CONNELL, called as a witness, being duly sworn, testified as follows:

*Examined by* Commissioner MITCHEL:

*Q.* What is your full name?

*A.* Patrick F. O'Connell.

*Q.* What is your business, Mr. O'Connell?

*A.* Examiner of the Department of Finance.

*Q.* How long have you been in that position?

*A.* Oh, a little over nine years.

*Q.* Are you acquainted with or have you in charge or under your supervision a contract executed by the California Asphalt Company for the paving with asphalt of a portion of First avenue?

*A.* Well, I have it at times, not altogether.

*Q.* Are you acquainted with the contract?

*A.* I am, yes.

*Q.* Can you tell us whether that contract has been assigned?

*A.* No, sir.

*Q.* You do not know?

*A.* No, sir, to my knowledge it has not been.

*Q.* Who in your department can answer that question positively?

*A.* The assignment clerk. If it were assigned there should be a copy of the assignment attached to this contract when I passed this specific payment. No such thing has ever been attached to this contract.

*Q.* Are payments still being made on that contract?

*A.* Yes, sir.

*Q.* To whom are they made?

A. Well, as far as I am concerned, the vouchers that I pass are payable to the California Asphalt Company, but I see here by receipts they have been paid to the Atlantic Aleatraz Company.

Q. Can you explain that?

A. No, sir.

Q. Are you acquainted with the practice of the Comptroller's Office and the city in the matter of retained percentages upon that contract and other contracts for the pavement of streets with asphalt?

A. Fairly well.

Q. What is that practice?

A. The practice as to payment?

Q. As to the retained percentages, if any?

A. Well, they have no practice outside of following the terms of the contract as to the specific number of years for which the money is retained and how that money is payable.

Q. Taking that particular contract, the California Asphalt Company, what percentage is retained by the Comptroller's Office at the present time?

A. Well, at the time the contract was completed, there was thirty per cent. retained of all the moneys earned on the contract. After two years—at least, after one year—fifteen per cent. of the amount that was retained for the Belgian block was payable to the company; that was paid, and the year after that the remaining fifteen per cent. for the granite block was paid. That cleared up the amount of retained money on the granite block. There was still left a balance of something like \$10,000. It left thirty per cent. of \$35,780.41 still payable to the California Asphalt Company.

Q. How was that balance disposed of?

A. Three per cent., payable after six years and the rest yearly until the expiration of fifteen years—that is three per cent. yearly.

Q. Are you acquainted with the method and system of retained percentages—method and system of retaining

percentages in the case of contracts let at the present time for asphalt paving?

A. Well——

Q. Under the five-year maintenance guaranty?

A. Well, some are payable four per cent. annually in five years, as I recall; others three per cent. annually.

Q. Can you say whether or not a percentage is always retained until the expiration of the period of guaranty?

A. Sometimes I think twenty per cent. is retained for one year.

Q. After that what is done?

A. Nothing. That clears the contract, as far as I can recall.

Q. Is not that in the case of the contract where the maintenance period lasts only one year, the guaranty of maintenance?

A. I believe it is.

Q. Where the guaranty of maintenance period lasts over a given number of years, is or is not a percentage retained in all cases during that period of time?

A. I don't think so. I think there are some contracts let with a five-year guaranty without any retention.

Q. Without any retention of a percentage?

A. I think so, just simply the bond to secure the city, the bond is kept in force.

Q. Can you cite those cases?

A. I cannot offhand.

Q. But in the case of the contract of the California Asphalt Company you know there is a percentage still retained by the city?

A. Yes, there is still retained about eighteen per cent. of that \$35,780.41.

Q. About eighteen per cent. of the \$35,000?

A. Yes, sir.

Commissioner MITCHEL—That is all.



JOHN R. MACNEILLE, called as a witness, being duly sworn, testified as follows:

*Examined by Commissioner MITCHEL:*

*Q.* Mr. MacNeille, what is your business?

*A.* I am a consulting auditor and corporation investigator.

*Q.* Where is your place of business?

*A.* 52 Wall street.

*Q.* What experience have you had in this business?

*A.* I was formerly the general auditor of the International Paper Company. I was retained by Attorney-General Mayer, of The City of New York, to investigate the American Ice Company, and pursuant to my investigation and report, action has been brought by the State against the ice company. I do a large amount of professional work as an auditor and public accountant, being retained by clients by the year.

*Q.* How many years' experience in this work do you say you have had?

*A.* Nine years.

*Q.* Have you, during the last few weeks as the representative of the Commissioners of Accounts, been engaged in the examination of the records and accounts of the office of the President of the Borough of Manhattan?

*A.* I have.

*Q.* Did you at my request make an examination of those funds which are available to the Borough President for paving and repaving the streets?

*A.* I did.

*Q.* Will you outline the nature of those funds and the purpose to which each fund may be devoted?

*A.* I brought these memoranda with me to refresh my memory. The four funds to which I understand you refer are, first, repaving streets, Borough of Manhattan, which is a corporate stock account and which is available for resurfacing the streets; that is, putting down a new

pavement in place of a former pavement, whatever kind it may have been.

*Q.* What other account?

*A.* The second is repaving and maintaining asphalt pavements, which is a revenue bond fund, and the title speaks for itself, describes the nature of the account. The third account is restoring and repaving, special fund.

*Q.* What is that fund?

*A.* It is a fund, the receipts of which come from payments for permits issued to various persons, such as plumbers to make openings in the pavement, and the fund is available for restoring the pavement thus destroyed or removed. The fourth account is repairs and renewals of pavements and regrading. This is an annual appropriation account and the title sufficiently describes the nature of the fund.

*Q.* Mr. MacNeille, did you make an examination of those funds in order to learn—for what purpose did you make an examination of those funds?

*A.* I examined the accounts and the various records appertaining to these four funds for the purpose, among others, of ascertaining what the available balances were that could be spent or against which liabilities could be incurred at various dates and after said dates.

*Q.* What was the first date at which you drew off the available balance from those funds?

*A.* 1906, April 1.

*Q.* When you speak of available balance, just what do you mean?

*A.* It is the net balance of the account at the date in question which can be spent or against which liability can be incurred at or thereafter, as already stated.

*Q.* Will you take the account, Repaving Streets, Borough of Brooklyn, which you have described as a corporate stock account, and describe the method by which you arrived at the available balance in that fund on April 1, 1906?

4. The method used by me was to take the 1906 general ledger in the main office of the Borough President, so-called, which is the office of the Commissioner of Public Works in the Park Row Building, and to copy from it on the first page of the account in question for said year the total funds in this account which had been available up to January 1, 1906, which included all receipts into the fund up to said date. From this total I deducted the total payments as charged against said account in the various said general ledgers for previous years in said department up to said date. To the remainder was added the receipts shown in said 1906 general ledger, during the three months ended March 31, 1906, and from that last described total of the two items I subtracted the payments entered in and appearing in said ledger for said last mentioned months. From this last remainder just obtained I subtracted the total outstanding orders on April 1, 1906, which was derived from the various order books for the years 1902 to 1906, inclusive, in said department, which orders when paid were chargeable to this account, and which orders when issued became an outstanding liability against said account. I also subtracted the total of outstanding contract obligations to April 1, 1906, as derived from the various contract ledgers in said department from and for the years 1900 to 1906, inclusive, which contracts when let became an outstanding liability against said funds. After said last two subtractions the remainder was used by me as the estimated available balance on April 1, 1906, for this account.

*Q.* And what did you find that available balance in that fund to be on April 1, 1906?

*A.* \$1,432,637.18.

*Q.* This, you say, is the fund for repaving streets, Borough of Manhattan, which is a corporate stock fund? Is that correct?

*A.* I do so state, and it is correct.

*Q.* Did you also make an examination to ascertain the amount of obligations incurred against that fund for a given length of time after April 1, 1906?

*A.* I did.

*Q.* For what length of time?

*A.* For the nine months ended December 31, 1906; that is, from April 1, 1906, to December 31, 1906, inclusive.

*Q.* How did you pursue that examination?

*A.* The liabilities last mentioned were either in the nature of orders issued, as already described, or of contracts let during said last mentioned period, and I derived the outstanding liabilities by copying from the order book in said department for the year 1906 the orders issued during said period and from the contract ledger for the year 1906 in said department the contracts let during said period, both of which orders and contracts were liabilities against and chargeable against said fund of Repaving Streets, Borough of Manhattan.

*Q.* What did you find to be the total of orders issued against that fund during the period named by you?

*A.* \$1,405.26.

*Q.* Was that the total of orders issued against that fund during those nine months?

*A.* It is and was.

*Q.* What did you find to be the total of contracts let against that fund during those nine months?

*A.* \$480,099.86.

*Q.* Did you make an examination to ascertain what proportion of those contracts had been performed?

*A.* I made a partial examination to that end, but rather an examination as to what portion of the amounts of the contracts let had been paid during said period.

*Q.* What proportion did you find of the contracts let had been paid during that period?

*A.* \$388,674.22.

*Q.* Did you calculate the total of orders and contracts let against this fund during those nine months?

A. I did not do so, but I can do so now readily.

Q. Will you please do it and state what the total liabilities incurred against that fund during those nine months was?

A. \$481,505.12.

Q. Can you state positively, from your examination of the records, that the sum you have just mentioned is the total of the only obligations incurred against that fund during those nine months?

A. I can so state as far as my knowledge goes, and I have made a careful examination.

Q. Will you state again what the total available balance was you found to exist on April 1, 1906?

A. \$1,432,637.18.

Q. Take the fund for Repairing and Maintaining Asphalt Pavements which you have described as a revenue bond fund. To what purpose did you say this fund could be devoted?

A. My answer to your previous question was that the title of the account was a good description of the nature of the work done under it and payments for which were charged against it.

Q. Is this the fund out of which maintenance contracts are paid?

A. Yes, it is.

Q. Did you make a calculation to find the available balance on April 1, 1906, in this fund?

A. I did.

Q. How did you arrive at that? I mean what method did you follow in making your calculation?

A. The method was practically the same as the method already described for the fund, Repaving Streets, Borough of Manhattan.

Q. You went through the same process?

A. I did, with the exception that at April 1, 1906, there was no outstanding contract liabilities against this account. There were contracts let which were liabilities against it after April 1, 1906.

Q. Well, on April 1, 1906, what did you find to be the available balance in this fund?

A. \$251,792.20.

Q. Did you, in the case of this fund, make a similar examination to ascertain the amount of orders or contracts let against this fund during the nine months subsequent to April 1, 1906?

A. I did.

Q. Are there both orders and contracts against this fund?

A. There are.

Q. What did you find the total of orders issued against that fund during that nine months to be?

A. \$24,713.59.

Q. How did you arrive at that figure?

A. I took the 1906 order book in said office and added up the estimated amounts of the orders issued as entered in said order book between April 1, 1906, and December 31, 1906, inclusive, in the section of the book devoted to this account.

Q. What contracts did you find let against this fund during those nine months?

A. Two contracts, one for maintenance of sheet asphalt pavement and the second for maintenance of block asphalt pavements.

Q. Held by what companies?

A. Uvalde Asphalt Company.

Q. What did you find the total amount of those two contracts to be?

A. \$153,350.

Q. That sum constituted an obligation against that fund incurred subsequent to April 1 and before January 31, did it not?

A. It did.

Q. Have you calculated the total obligations incurred against that fund during those nine months, both for contracts and orders?

A. I have not, but I can readily do so.

*Q.* Will you please make that calculation and give us the total?

*A.* \$92,550.75.

*Q.* \$92,000, or \$192,000?

*A.* \$92,550.75.

*Q.* But you said the total contract obligation was \$153,000—

*A.* I beg your pardon, Mr. Commissioner, and I request that be cancelled.

*Q.* You wish to correct your answer?

*A.* I wish to cancel that, because I was taking the payments made on contracts plus the orders issued, so the figures are entirely incorrect.

*Q.* Will you take the total amount of the contracts let and the total amount of the orders issued and calculate the total?

*A.* \$178,063.59.

*Q.* Were these the total obligations for repairing and maintaining pavements incurred against this fund during those nine months?

*A.* They were.

*Q.* Will you name again the available balance that you found in the fund on April 1, 1906?

*A.* \$251,792.20.

*Q.* Take next the fund entitled Restoring and Repaving, Special Fund. This, you say, is the fund established by payments made upon the issue of permits. Is that correct?

*A.* Yes.

*Q.* Did you make a calculation to find the available balance in this fund on April 1, 1906?

*A.* I did.

*Q.* How did you arrive at that available balance?

*A.* The method was slightly different from the previous method already described, but the main features are the same.

*Q.* Will you briefly outline it?

A. The cash balance in the hands of the City Chamberlain on January 1, 1906, was taken from the general ledger in said office. The receipts during the first quarter of 1906; that is, the three months ended March 31, 1906, were then taken from the said ledger. Payments were also taken for said three months and subtracted from the total of the last two mentioned items, leaving a cash balance as per said ledger on April 1, 1906, from which I subtracted the outstanding orders on April 1, 1906, and the remainder was taken as the available balance for said date.

Q. What did you find that available balance to be on April 1, 1906?

A. \$102,077.

Q. Did you also make an examination to find the orders or other liabilities incurred for repaving issued against this fund during the nine months following April 1, 1906?

A. I did.

Q. How did you arrive at that figure?

A. In a manner similar to arriving at the orders issued for the last described account, namely, Repairing and Maintaining Asphalt Pavements in the Borough of Manhattan.

Q. What did you find the total of such orders to be issued during those nine months?

A. 41,273.89.

Q. Take the account, Repairs and Renewals of Pavements and Regrading. This, you say, is an appropriation account. Is that correct?

A. I do say so, and it is correct.

Q. Did you make an examination in this case to find the available balance on April 1, 1906?

A. I did.

Q. How did you arrive at your figure in this case?

A. In detail, I took from said last mentioned general ledger the appropriation for the year 1906, which becomes available on January 1, 1906, and subtracted from



that payments as shown by said ledger during the three months ended March 31, 1906, which left a cash balance on April 1, 1906, from which cash balance, last cash balance, I subtracted the total of outstanding orders on April 1, 1906, and the total of outstanding contract obligations on April 1, 1906. The remainder was taken by me as the available balance on April 1, 1906, for said account.

*Q.* What did you find that balance to be, that available balance, to be on April 1, 1906?

*A.* \$501,562.72.

*Q.* Did you, in this case, make a calculation to learn the obligations incurred against this fund for repairs and renewals of pavements?

*A.* I did.

*Q.* During the nine months?

*A.* I did.

*Q.* How did you arrive at your figures in this instance?

*A.* By taking the 1906 order book in said department and adding up the orders showed between said dates; that is, during said nine months, as appearing in said book under the said account.

*Q.* What did you find?

*A.* I might add that in two of these four accounts now being discussed there were no contract obligations incurred said nine months, and, of course, I ascertained that fact before confining myself only to the order book.

*Q.* What did you find the total of such orders to be during that period of nine months subsequent to April 1?

*A.* \$24,702.85.

*Q.* Were these orders issued to Asphalt Companies only?

*A.* As to that I cannot say from memory.

*Q.* Does that sum represent orders issued to paving companies?

*A.* I should say for the most part, yes, but I did not examine the detail of the nature of the orders, because my time was limited and I had to do it very quickly.

*Q.* The total, you say, is \$24,702.85?

*A.* \$24,702.85.

*Q.* Were these the only obligations incurred against that fund during those nine months for repairing or maintaining asphalt pavements?

*A.* Yes, so far as my knowledge goes.

*Q.* What did you say the total available balance was on April 1, 1906?

*A.* \$501,562.72.

*Q.* It is true, is it not, Mr. MacNeille, that the greater proportion of payments from this fund are made on pay-rolls?

*A.* I believe it to be true.

*Q.* The force of the department?

*A.* I believe it to be true.

*Q.* Said payments would represent payments for labor performed on streets, other than asphalt streets, wouldn't it?

*A.* It would.

*Q.* In all cases?

*A.* I believe in all cases, yes.

Commissioner MITCHELL.—I think that is all.

At this point a recess was taken until 2:30 P. M.

#### AFTER RECESS.

Continuation of the examination of JOHN MACNEILLE:

By Commissioner MITCHELL:

*Q.* Mr. MacNeille, were there any payments made out of the various fund accounts concerning which you testified this morning during those nine months, from April 1, 1906, to the end of the year, other than those you testified to this morning?

*A.* Only the payments for payrolls of the department, except such payments as were made upon contracts let or orders issued prior to April 1, 1906.

*Q.* Payments made on contracts let prior to April 1, 1906, you took account of, did you not, in reckoning the available balances?

*A.* I did; that is, in estimating the outstanding contracts I took what contracts had been let and were not yet completed, and from their total amount, as accepted, subtracted the payments already made on same, as shown by the contract ledgers, leaving the balance remaining to be paid on same as an outstanding liability.

*Q.* Well, will you indicate the payments made from the various funds for payroll during those nine months?

*A.* Well, I took the figures down which constitute——

*Q.* Beginning with repaving the streets, Borough of Manhattan, corporate stock.

*A.* Payments during the nine months ended December 31, 1906, for payroll of the department charged against repaving streets, Borough of Manhattan, \$56,-090.73.

*Q.* Now, take repairing and maintaining asphalt pavement, revenue bond fund.

*A.* Similar payments for payroll of the department charged against repairing and maintaining asphalt pavement in Borough of Manhattan during said nine months, none.

*Q.* Take restoring and repaving, special fund.

*A.* Similar payments for payroll during said nine months charged against the account restoring and repaving, special fund, 46,883.82.

*Q.* Take repairs and renewals of pavement, new grading appropriation.

*A.* Similar payments for payroll during said nine months charged against the account, repairs and renewals of pavements and regrading, \$426,294.88, being the payrolls of the department. I might add that in the case of the disbursements for payroll charged against restoring and repaving, special fund, they were part inspectors and part laborers.

*Q.* As to the last fund which you mentioned, these repairs and renewals of pavements and regrading, were the payrolls on which those payments, concerning which you have testified, were made payrolls of laborers employed on asphalt or on other streets?

*A.* On other pavements than asphalt.

*Q.* On other pavements than asphalt?

*A.* Than asphalt.

Commissioner MITCHEL—That is all Mr. MacNeille.

ALLAN W. DOW, recalled for further examination, testified as follows:

By Commissioner MITCHEL:

*Q.* Mr. Dow, in laying asphalt pavement, what, in your judgment, is the most important step for officials to take?

*A.* The drawing up of suitable specifications.

*Q.* Now, will you indicate in a general way what you mean by proper specifications?

*A.* Why, specifications that will allow the use of only materials that have been proven satisfactory in paving, and of methods that are proven by experience to be satisfactory in paving, methods and construction.

*Q.* Have you recently made an examination of the contract and specifications for sheet asphalt paving in use in this borough?

*A.* Yes, I have.

*Q.* When did you make that examination?

*A.* Within the past three weeks.

*Q.* Was your examination such in point of care as to enable you to form a judgment concerning those specifications?

*A.* Yes.

*Q.* Well, will you tell the Commission what conclusions you have formed with respect to the specifications for sheet asphalt paving?

A. Well, they are, to my mind, ambiguous, and they have clauses contradicting each other, and are generally—well, they also contain clauses that are unnecessary, and they are indefinite.

Q. (Handing paper) Mr. Dow, I show you Exhibit No. 92 and ask you if that is a copy of the specifications which you examined?

A. This appears to be similar to a copy which I examined.

Q. Well, will you look it through and see if it is a copy of the same specifications?

A. Yes, I should say these were the same as I examined.

Q. Now, Mr. Dow, how did you find those specifications as to the quality of the materials which they allow?

A. Well, they will allow both good and bad materials.

Q. How as to the manipulation of those materials, defective or otherwise?

A. They are defective, but they are principally defective in not giving sufficient details of the treatment of the materials.

Q. Those specifications in Exhibit No. 92 are for sheet asphalt pavement, are they not?

A. Yes.

Q. Now, Mr. Dow, will you take up in sequence the various items of those specifications and comment upon them on the basis of your examination?

A. I find them, first, defective in the requirements for the binder course. This clause really prohibits the use of a suitable binder, of a good quality binder.

Q. In what respect?

A. By restricting the amount of fine material which shall go into it. A binder made under such specifications as these would be open and lacking in rigidity and strength. They should specify the material graded from coarse to fine, with sufficient fine material to fairly well fill up the voids of the coarser stone. In this way a rigid and strong binder is obtained. With these specifi-

cations a cheap grade of binder could be used; that is, the less fine material used the less asphalt cement is necessary.

*Q.* Mr. Dow, could a binder made of coarse material only be efficient?

*A.* No, it would not be efficient. It would be so open and full of large voids that the wearing surface would press into these voids and push the stones apart, displace them. There is no doubt but what many defects in the pavements have resulted from just this cause; that is, the wearing surface being pushed into the voids of the binder and displacing it.

*Q.* Now, Mr. Dow, is there any provision in those specifications which you have before you which makes it impossible for the contractor to manufacture a binder of nothing but coarse materials?

*A.* There is nothing in these specifications that would make it impossible for a contractor to manufacture a binder of nothing but coarse material.

*Q.* How would you provide that a binder should be constructed?

*A.* As I have just stated in a way, the stone should be graded from coarse to fine, so that the voids of the coarser stone would be filled with the finer particles, and then a sufficient quantity of asphalt cement put in the binder to totally cover all the surface.

*Q.* What percentage of fine material do you consider it necessary that a binder should contain?

*A.* That depends largely on the character of the stone used. In a specification I would specify at least thirty per cent. of the material passing a half-inch screen.

*Q.* And you say there is no such provision in these specifications?

*A.* No such provision.

*Q.* In Exhibit 92?

*A.* No such provision in these specifications.

*Q.* Take up the provisions as to wearing surface, Mr. Dow. What do you find in this connection?

A. Why, I find that they are ambiguous and having clauses contradicting each other, and also several clauses that are useless, meaningless.

Q. Well, will you specify the respects in which they are ambiguous or contradictory?

A. They are ambiguous, first, in the definition of asphalt. This clause reads: "The term asphalt shall be construed to signify any natural mineral bitumen, liquid or solid, which is adhesive, viscous, ductile and elastic, or which becomes adhesive, viscous, ductile and elastic on the application of heat." The terms viscous, adhesive, ductile and elastic are not sufficiently definite, are not definite enough to make a statement for a requirement in the specifications; that is, they may be interpreted to mean different properties by different parties. They are also indefinite in their definition of refined asphalt. "The refined asphalt shall be obtained by refining crude natural asphalt until the product is homogenous and free from water." As no definition has been given here for the word refining, it is possible for a refiner to treat his asphalt in any way and call it under the name of refining. That is, he might add a worthless material to his crude asphalt, and he might treat it in a way that would make it an unsatisfactory material.

Q. Would that treatment which you have just described still comply with these specifications?

A. Yes, that treatment would comply with these specifications.

Q. Would it produce an unsatisfactory material?

A. And it could produce a very unsatisfactory material, totally unsuited for paving.

Q. You mean that it might or might not?

A. It might or might not, depending on the contractor.

Q. As you have touched upon the provision, or at least the clause of those specifications defining the term asphalt, what have you to say as to that clause in its rela-

tion to the later clause stating that asphalt obtained from the distillation of asphaltic oils will not be accepted?

A. The one clause is contradictory to the other in this way: The first clause mentioned states that "the term asphalt shall be construed to signify any natural mineral bitumen, liquid or solid." The usual liquid bitumens which would be satisfactory for making asphalts are the California liquid asphalts or oils. In the second clause quoted—I have not quoted the second clause.

Q. I quoted that and I asked you to comment on that in its relation to the former clause.

A. The second clause distinctly specifies that "asphalt obtained from the distillation of asphaltic oils will not be accepted," which is contradictory to the former.

Q. Mr. Dow, can you state whether or not asphalt obtained from the distillation of asphaltic oils makes a satisfactory pavement?

A. Some asphalts from the distillation of asphaltic oils make satisfactory pavements.

Q. Do you know of any cities in which pavements are laid which have been constructed from such material?

A. I do.

Q. Will you name some?

A. In Brooklyn, Toronto, Utica, Winnipeg, Manitoba; Bakersfield, California. Those are all that I can call to mind at present.

Q. Will you look at the clause in Exhibit No. 92, providing that asphalt affected by the action of water shall be excluded?

A. Yes.

Q. Have you found that clause?

A. Yes.

Q. Now, will you tell us what asphalts that would exclude?

A. This clause is——

Q. Just strictly applied, what asphalts would that exclude?



A. It would hardly exclude any asphalt, it is so indefinite.

Q. It would hardly exclude any asphalt?

A. Pardon me, I will take that back. This clause is so indefinite that it would exclude every asphalt.

Q. Do you mean that if that clause were strictly applied that it would exclude the use in this borough of all asphalts?

A. All asphalts, as all asphalts are more or less affected by water.

Q. Could that difficulty be obviated by a provision of tests?

A. It could be readily obviated by providing the extent of water action which would be allowable in an asphalt. This could be specified by tests such as are used in the Washington specification, the Washington, D. C., specifications.

Q. Will you look at Sections 62 and 63 and comment upon them?

A. Sections 62 and 63 are rather misleading or indefinite, as section 62 says: "Heavy petroleum oil, if used in the manufacture of asphaltic cement, as hereinafter described, shall be a petroleum from which the lighter oils have been removed by distillation without cracking, until it has a specific gravity of fifteen degrees to twenty-two degrees Beaume and the following properties." Section 63 reads: "Liquid asphalt, maltha, or any other softening agent fulfilling the above test and approved by the engineer, may be used in place of heavy petroleum oil." What is usually known on the market as liquid asphalt is that derived from the California oils. This asphalt is of much heavier gravity than stated in the clause read just before this, fifteen to twenty-two degrees Beaume; it generally runs between ten and thirteen degrees Beaume; while in this——

Q. Well, then, Mr. Dow, could that form of liquid asphalt comply with these specifications?

A. That liquid asphalt would not comply with these specifications.

Q. It is mentioned specifically in the specifications as an asphalt that will be accepted?

A. It is. It states here: "Liquid asphalt, maltha, or any other softening agent fulfilling the above test and approved by the engineer, may be used in place of heavy petroleum oil."

Q. Well, now, which provision is it that you have to criticise, that prescribing that petroleum oil shall be within the limits of fifteen to twenty-two degrees Beaume, or the provision allowing the use of liquid asphalt or maltha?

A. The provision allowing the gravity to be between fifteen and twenty degrees Beaume is too limiting, as the majority of oils used at the present time and those that are perfectly satisfactory are heavier than this gravity.

Q. Would it be possible to get as satisfactory pavements under that condition as without it?

A. Under some cases it would be impossible to get satisfactory pavements under this provision.

Q. Does that provision exclude certain ingredients that would make satisfactory pavements?

A. It does.

Q. Have you found in these specifications any unnecessary requirements?

A. The requirement that reads as follows in Section 61: "It must not be affected by the action of water; must contain not less than ninety per cent. of bitumen soluble in carbon-bisulphide, and of the bitumen thus soluble in carbon-bisulphide not less than sixty-eight per cent. shall be soluble in boiling Pennsylvania petroleum naphtha." The quantities of bitumen which asphalt contains have nothing to do with its quality for paving, provided the matter other than bitumen is of a satisfactory nature.

Q. Does that provision exclude any particular asphalt from this market?

A. This provision excludes Trinidad asphalt and several Cuban asphalts.

Q. Will you explain why it makes no difference what percentage of bitumen the asphalt contains for the purpose of asphalt paving?

A. Why, it makes no difference what percentage of bitumen there is for this reason, that mineral matter and dust must be added to the asphalt to produce a paving mixture, and it makes no difference whether that mineral matter is originally in the asphalt or whether it is added to it in the course of manufacture.

Q. Mr. Dow, it would be necessary, would it not, to provide that the mineral matter must contain no injurious ingredient? I refer to the mineral matter that may be found in the natural asphalt.

A. That might be—it might be well to do that, but the same—that defect could be arrived at by other requirements.

Q. That defect?

A. That defect could be deducted and credited against all other requirements which could be placed in the specifications.

Mr. LITTLETON—Are these the specifications that have been adopted by the Board of Estimate and Apportionment?

Commissioner MITCHEL—They are. These are the specifications that are now in use.

Mr. LITTLETON—I happened to be present when these were adopted; that is the reason I ask if these are the ones referred to.

Commissioner MITCHEL—These are the ones that were adopted by the Board of Estimate and Apportionment which you opposed so strenuously.

Mr. LITTLETON—At that time the distilled asphalts were being used, and we had paid seventy

cents a square yard in Brooklyn, and the adoption of it would have excluded about four-fifths of the contractors, and I asked that Brooklyn be relieved of this. I think it was prepared by Mr. Lewis, of the Board of Estimate and Apportionment.

Commissioner MITCHEL—That will come out later. I might say that it was modified only in one respect at that time, Clause 61. The minutes of the Board of Estimate and Apportionment show that.

Mr. LITTLETON—The history of it was rather cloudy to me, if these were the ones. The amendment was made applying to the whole city on the report of the engineer. I did not know much about it. It was not a matter which I was familiar with, being an engineering matter, and we went back and the engineer in Brooklyn called my attention to the fact that our contractors were laying a large amount of this asphalt, and then I came back and asked that Brooklyn be relieved from it, and I know that was the only change made then.

Commissioner MITCHEL—This was the clause that was proposed by Mr. Ahearn, Mr. Lewis and Mr. Olney, and it was adopted by the whole city and later modified by relieving the other four boroughs from the provisions. I shall read the minutes of the Board in evidence later.

Mr. LITTLETON—Mr. Whinery was at that time, I think, in Mr. Ahearn's employ, and I think he appeared before the Board on that occasion. Mr. Hoyt also was in the employ of the city at that time on the question of certain asphalts.

Q. Mr. Dow, will you comment upon the specifications as to their provisions for asphalt cement?

A. In their provision for asphalt cement they are very indefinite, not stating the quantity of residuum oil neces-

sary to add to the refined asphalt to make the cement; that is not putting limits for it.

Q. What is the effect of not putting limits upon that?

A. The main effect would be that—give me that question again, please.

Q. I ask what is the effect of putting no limitation upon the amount of the petroleum oil that would be allowed to be mixed with the liquid asphalt?

A. The effect is that any character of asphalt cement could be obtained; that is, cements of any degree of consistency. They also do not specify any method of determining the consistency of the asphalt cement.

Q. Any method of what?

A. Any method of determining it; they do not specify any degree of consistency.

Q. Well, what injury could be worked by failing to determine the degree of consistency?

A. An improper pavement might be manufactured in that way.

Q. Will you tell us how?

A. That is, the asphalt cement might be too soft, or it might be too hard; being too soft, it would mark very badly and cut out in summer time; and being too hard, it would be brittle and friable in winter time. It is possible, with our present knowledge, to specify tests in here which would definitely state the consistency of an asphalt cement.

Q. Will you comment upon the provision relating to the sand that is to be used in the paving mixture?

A. The requirements for the sand in the paving mixture, Section 66, reads: "The sand to be used shall be hard grained, moderately sharp and clean, not containing more than one per cent. of clay or loam. On sifting, the whole shall pass a ten mesh screen, twenty per cent. shall pass an eighteen mesh screen, and at least seven per cent. shall pass a hundred mesh screen."

For streets of medium and heavy traffic, the requirements for the quantity of fine material in the sand are not high enough. They should specify a finer grade of sand, a finer grain of sand for such work.

*Q.* Will you indicate what benefit would be derived from requiring a larger amount of fine sand?

*A.* They would obtain a much more compact paving mixture and one that would withstand heavy traffic much better than the one specified here.

*Q.* Will you comment further on Section 67?

*A.* Section 67 relates to the inorganic dust. It reads: "The inorganic dust shall be finely powdered carbonate of lime, granite, quartz, or other inorganic dust approved by the engineer. Such inorganic dust must be of such a degree of fineness that the whole of it shall pass a thirty mesh screen, and at least sixty-six per cent. a two hundred mesh screen."

In this clause it specifies that it allows the use of powdered granite and quartz.

*Q.* Are these proper materials?

*A.* These materials do not act the same as powdered limestone, and are not as desirable. Pavements for heavy traffic or even medium traffic should not be constructed unless containing a material such as powdered limestone or similar material, which the granite and quartz are not.

*Q.* Mr. Dow, do you consider that inspection at the plant of the asphalt company which is to lay the pavement is necessary or not?

*A.* I think it is very necessary.

*Q.* I mean inspection by the City Department?

*A.* By the City Department and by a competent man.

*Q.* Why?

*A.* It is impossible to tell what is put into the pavement unless a man is present and sees it go in.

*Q.* Do you consider that that is a necessary safeguard for the city?

A. It is, yes.

Q. Do these specifications provide for such inspection?

A. No, they do not, so far as I have been able to find.

Q. Did you examine the specification now in use in this borough for laying asphalt block pavement?

A. Yes, I did.

Q. I show you Exhibit No. 93, and ask you if that is a copy of the specifications which you examined?

A. Yes, they are the same.

Q. In what respects do the criticisms that you have made of the sheet asphalt specifications apply to these?

A. Why, the criticism of the definition of a refined asphalt made on the specifications for sheet asphalt pavement applies to these specifications also. That is, the word refining not being defined, can mean about anything. The criticism referring to the action of water also applies, and the clause excluding asphalt containing less than ninety per cent. bitumen is also applicable.

Q. Will you look at Section 40 of those specifications?

A. Yes.

Q. And say whether there is anything there that you find to criticise?

A. Section 40 can be criticised in specifying a material as a flux that in the present understood meaning of the term is not at all suitable for making asphalt block cements. This clause reads this way: "The asphaltic cement shall be composed of refined asphalt and a liquid asphalt or other suitable flux." Liquid asphalt, as it is usually understood at the present date, is the residue from California oils. This, when mixed with refined asphalt, should not make a suitable asphalt cement for asphalt block, because the asphalt cement is too susceptible to changes in temperature.

Q. Then, do I understand that it is your opinion that while that asphalt is suitable for sheet asphalt pavements, it is not suitable flux for the asphalt cement that goes into the manufacture of asphalt blocks?

A. Yes. It is suitable for sheet asphalt pavements, because it adds ductility to the cement. This property is desirable where a pavement is laid in one continuous sheet, but it is not at all essential in the case of asphalt block.

Q. When you say it is not essential, you mean that it is not desirable, or not essential or what?

A. It is not essential.

Q. Do you consider that blocks made of that flux are likely to prove good and enduring?

A. No. That flux, besides adding ductility to an asphalt cement, also makes the cement susceptible to changes in temperature; that is, being brittle in cold weather and soft in warm weather. The asphalt blocks made of a cement like that would be apt to grind away in winter time and become so soft as to be deformed in the warm weather.

Q. Have you any criticism to make in respect to requirements as to dust?

A. The specifications for asphalt block are entirely lacking in requiring any dust in the block; while in sheet asphalt it specifies that dust shall be required. The dust is really a more important factor for the manufacture of asphalt block than in the sheet asphalt pavement.

Q. Why?

A. Well, that is rather hard to say. Experience has shown it to be an essential property or quality.

Q. What part does it play in the composition of the block?

A. It aids in filling up the voids of the coarser of the particles and also in giving a peculiar toughness to the asphalt cement used.

Q. Have you any further comments to make concerning the provision for the mineral ingredients of the blocks?

A. The requirements for the mineral ingredients for the asphalt block is not sufficiently definite, and it is in



fact entirely left to the discretion of the contractor as to what character of material he shall use.

*Q.* Do you consider that insures the city suitable blocks for asphalt paving?

*A.* I answer this conditionally. If a specification such as these; that is, specifications that go into the detail of manufacture, are to be used, the entire manufacture should be described. I myself believe in stating certain physical tests that the finished block themselves should stand to meet the requirements of a specification.

*Q.* Could such physical tests be prescribed in the specifications?

*A.* In my belief, they can be at the present time.

*Q.* Well, now, Mr. Dow, going back to these specifications for sheet asphalt pavements, Exhibit No. 92, do these specifications, in your opinion, insure the laying of good and durable pavements in this borough?

*A.* What specifications were those you asked me about?

*Q.* Exhibit 92, the specifications for sheet asphalt.

*A.* They do not. The quality of the pavement is entirely dependent upon the character of the contractor.

*Q.* On the character of what?

*A.* On the character of the contractor. If he wishes to give good pavements, he will give them; if he wishes to give poor ones, he will give you poor ones.

*Q.* Do you consider the quality of the pavement, then, is a matter of discretion with the contractor?

*A.* Yes.

*Q.* Do you mean to say the city is helpless as far as enforcing from the contractor the laying of a good and durable pavement under these specifications is concerned?

*A.* The city is practically helpless.

*Q.* Do you consider, Mr. Dow, that with entirely adequate specifications that it would be possible to secure good and durable pavements without an efficient and honest system of inspection?

A. It would be impossible without an efficient system of inspection to secure good pavements.

Q. Then, do you consider that the specifications and the system of inspection are equally important?

A. I do, yes.

Q. Now, what do you consider adequate, sufficient and honest inspection?

A. Well, the city should have an inspection bureau, which should consist of a force of men sufficiently trained to understand and watch the manufacture of the pavements at the paving yard. They should examine all materials, all new materials, received and submit samples of these to a laboratory connected with the city for examination, and they should also watch all the preparations of materials used.

Q. Where should that be done?

A. At the paving yard; and they should also take the temperature, seeing that they are not too low or too high for the proper working of the materials. They should also test such materials as sand and the asphalt cement as they are being used at the paving yard. In this way they would insure uniformly good material being sent out. On the street they should have inspectors stationed with each gang, who would watch the material being laid, and see that the specifications are complied with there.

Q. How important a part in the work of laying a pavement do you consider that the inspection on the street plays?

A. The inspection on the street is not so important. It could be done by men without special training, as long as they are honest and conscientious.

Q. What is required of them to do?

A. They should watch the thickness of the pavement being put in; they ought also watch the character of the materials coming from the paving yard, which would act as a check on the inspector at the paving yard. They should also take the temperature of the materials as they

arrive on the street, see that the materials are properly compressed.

*Q.* Was it not in establishing a system of inspection at the yard and on the street that you were engaged in Washington, Mr. Dow? \_

*A.* Yes, I was.

*Q.* Did the system which you put in operation in Washington conform to the system which you have just described to us?

*A.* Yes, it did, and still further than that, the inspectors at the yard also measured the material which was sent out so as to get a still further check on it in that way.

*Q.* Did that system produce satisfactory results?

*A.* Perfectly satisfactory results.

*Q.* How long was it in operation, Mr. Dow?

*A.* The system which I have just enumerated has been in operation about nine years, I should say, in Washington.

*Q.* Is it in operation at the present time?

*A.* It is in operation at the present time, yes.

*Q.* Are you acquainted with any other cities in which a similar system of inspection is being used?

*A.* No, I am not.

*Q.* Mr. Dow, did you prepare a sample set of specifications for sheet asphalt and asphalt block pavements at my request?

*A.* No, only for sheet asphalt pavements. The asphalt block specifications would have to be studied before preparing them.

*Q.* You did prepare a set of specifications for sheet asphalt pavement?

*A.* Two sets, one such as used in the City of Washington, and another set which is drawn up, specifying the asphalts by brand and name.

*Q.* Are these the specifications which you prepared (handing paper)?

*A.* These are the specifications which I prepared.

The specifications were received in evidence and marked "Exhibit No. 102, April 24, 1907, C. B."

MARVIN SCUDDER, recalled for further examination, testified as follows:

*Examined by* Commissioner MITCHEL:

*Q.* Mr. Scudder, have you made an examination of the records of the Corporation Counsel's Office at my request?

*A.* I have.

*Q.* For what purpose?

*A.* To ascertain the actions commenced against the City of New York for damages resulting from condition of pavements, and I have also computed in each case the amount of damages claimed for three years, 1904, 1905 and 1906, giving totals and recapitulations.

*Q.* Has that examination covered those three years?

*A.* It has.

*Q.* Will you give the results of your examination?

*A.* These figures are taken from the official reports, annual reports of the Law Department, Corporation Counsel's Office for the years 1904, 1905 and 1906. The title is "List of Actions Commenced Against the City of New York for Damages Resulting from the Condition of Pavements and Amount of Damages Claimed."

For the year 1904 the total amount of damages claimed in actions, \$435,327.50, representing fifty-five cases.

For the year 1905, total of \$216,279.08, representing forty cases.

For the year 1906, \$401,780, representing forty-three cases.

Making a total for the three years of \$1,053,386.58, and 138 cases all told.

JAMES W. HOWARD, recalled for further examination, testified as follows:

*Examined by* Commissioner MITCHEL:

*Q.* Mr. Howard, when you testified the other day you referred to certain cases of repairs that were being made by the asphalt companies that you noticed.

*A.* I did, repairs and maintenance; maintenance on Broadway and First avenue, repair contract on Sixteenth street, Twentieth and Twenty-first streets.

*Q.* I refer to the latter. Will you tell us again what you noticed in the case of those repairs?

*A.* Around Gramercy Park the repairs were being made mechanically very nicely, flush with the surface of the old pavement and the place cleaned up well, that is, as to mechanical finish. As to painting the edge of the old one, they cut it back and put in the new; they did that very well. By painting, I mean putting on a thin coat of asphaltum or asphalt cement to make the asphalt paving mixture stick, new to old, when put in; that was done well. I picked up a piece of that asphaltum or refined asphaltum or bitumen; it is all in the same family, that they had brought there in a cart, and took that with me. That I recognized pretty quickly about what it was. That was the refined mineral pitch or asphaltum, called for brief refined asphalt.

*Q.* Did you obtain any other samples?

*A.* I took samples from the street, from several of these places after they were put in, so they were true samples of the pavement as laid.

*Q.* Did you obtain any other samples?

*A.* That day?

*Q.* In connection with those particular repairs?

*A.* Yes, from the wagon before the material was put into the holes.

*Q.* Will you describe the method by which you obtained those samples and where?

A. I got them from the wagons at the asphalt mixing plant in Jersey City.

Q. What asphalt mixing plant?

A. From where the repair material came. As to what plant it was, it is the one situated on Green street, not far from, I think, Essex street, the sign was a little dim on the street, Essex, in Jersey City, and the wagons were labeled practically Uvalde Carting Company. The plant was not labeled.

Q. Are you acquainted with that plant?

A. As far as I know it was not labeled. I did not see any label, didn't hunt for one.

Q. Are you acquainted with that plant?

A. I am now fairly well, from having visited it and examined it the morning of the day when I followed the samples from that plant to the street, taking them at the plant, when they were put together by synthesis later on from the street, as I have stated, after being laid in the pavement.

Q. Will you describe in detail how you obtained those samples at the plant from the wagons?

A. The samples I obtained at the plant were all refined asphaltum or refined asphalt, and also the asphalt paving mixture. I took no samples of sand at the plant, nor of the mineral itself.

Q. How did you obtain the samples of the refined asphalt?

A. In two ways, or three ways, in fact. There were two kinds of refined asphalts, or asphalts in barrel in the yard, one in iron barrels, the other in wooden barrels. The one in the iron barrel was marked B. A. P. Co.; the other was marked D. X.; the iron barrels had the B. A. P. Co., and the wooden barrels had the D. X. I took samples of each of these two from the barrels. Also when they cut the barrels in two and put the material in the melting kettles. I took a sample from what was going in the melting kettle, the asphalt mixture being made from

the material going into the kettle, and I took a sample from the cart, that being the paving mixture.

*Q.* Do you mean the asphalt marked B. A. P. Co., as well as that marked D. X., was put into the paving mixture?

*A.* I saw no B. A. P. Co. barrels being cut into nor put in the mixtures nor used that morning.

*Q.* Did you watch the process of manufacturing the mixture?

*A.* I did. I have run paving yards and made mixtures. It only takes one glance to see the whole thing.

*Q.* What material was it that you did see going into the paving mixture?

*A.* The refined asphaltum, the sand, the stone dust.

*Q.* The refined asphaltum was what?

*A.* That was taken from the wooden barrels marked D. X., the barrels being stripped of their staves and the rest thrown into the melting kettle.

*Q.* Was that the only asphalt you saw going into the paving mixture?

*A.* When I was there that is all I saw going in at any time.

*Q.* Would it be possible that any other asphalt should go in while you were watching the process without your seeing it?

*A.* No, but the barrels marked B. A. P. Co. were another kind of material and a little worse than the D. X. ones as far as appearances went.

*Q.* Well, did you take any samples from those barrels marked D. X., the contents of which you say you saw going into the paving mixture?

*A.* I did.

*Q.* What did you do after taking those samples?

*A.* Put them in tin boxes and marked them and put them in my pocket and followed the carts to the ferry.

*Q.* Did what?

*A.* Followed the wagon to the ferry, and then from the ferry to the street.

*Q.* Did you take any samples from the wagon while following it to the street?

*A.* On the ferry boat.

*Q.* And what did you do with those samples, Mr. Howard?

*A.* Put them in more tin boxes. I was equipped with tin boxes for my business.

*Q.* Did you obtain any other samples after that?

*A.* On the street, cut it from the pavement; it had been dumped from that wagon and other wagons all labeled alike.

*Q.* Did you follow the particular wagon from which you took the samples?

*A.* I did; it was a wagon that left there 8:30 in the morning.

*Q.* Did you see that material laid on the street, this asphalt pavement?

*A.* Part of it; they were patching holes; not all the material.

*Q.* Now, will you tell us what you did with the three samples, the one taken at the plant, one from the wagon, and one taken from the street?

*A.* Took them to my paving testing laboratory—chemical laboratory, not the physical; that is another place, for stones, bricks and other material.

*Q.* What did you do with them there?

*A.* Started to analyze to get the per cent. of bitumen and sand.

*Q.* Have you completed the analysis?

*A.* No; I am on the Grand Jury and kept so busy I could not. It takes eight or ten hours' steady work to get that done, but I am almost done.

*Q.* Have you completed it sufficiently to be able to determine the quality of the material, of the asphalt mixture?

*A.* You mean the refined asphalt, so-called?

*Q.* Yes?

*A.* Yes.



*Q.* Will you tell us what quality it was?

*A.* I have not tested for quality. I test for the general family to which it belonged.

*Q.* That is what I meant to ask you.

*A.* Because in each family there are a hundred kinds of kids, if you take all the cousins together.

*Q.* Will you tell us what family of asphalt it belonged?

*A.* Oil asphalt, or the oil asphalt group.

*Q.* What do you mean by the oil asphalt group?

*A.* That is a commercial name for the asphaltum which remains when the lighter oils are distilled off, say, from California oils, California asphaltic oils. It is true asphaltum, just the same, but it is called in commerce oil asphalt.

*Q.* I read to you from Exhibit No. 94, the contract held by the Uvalde Asphalt-Paving Company for repairing and maintaining asphalt pavements in the Borough of Manhattan, Section 18: "The refined asphalt shall be obtained by refining crude natural asphalt until the product is homogeneous and free from water. Asphalt obtained from the distillation of asphaltic oils will not be accepted." Mr. Howard, can you state whether or not the asphalt, the samples which you took that day, was or was not obtained from the distillation of asphaltic oils?

*A.* That which I obtained at the paving yard or plant in Jersey City and the piece that I obtained on Twenty-first street, on the north side of Gramercy Park, were, in my judgment made from asphaltic oils. I wish to say that I do not want to condemn those samples or any other because they are from that source, but that is the source, in my judgment, from which that asphaltum or asphalt was manufactured.

*Q.* What I asked you was whether the samples which you examined were obtained from the distillation of asphaltic oils, not as to your judgment as to whether or not the asphalt obtained from asphaltic oils is good or not.

*A.* They were obtained from asphaltic oils, basing my opinion upon my knowledge and experience with asphalts.

*Q.* Mr. Howard, were you at any time employed by President Ahearn?

*A.* Yes.

*Q.* In what capacity?

*A.* As consulting engineer on pavements, the larger part of it being in connection with asphalt pavements.

*Q.* At what time did your connection with the Borough government begin?

*A.* I had served previous administrations. Do you mean under President Ahearn?

*Q.* I am speaking of your employment by President Ahearn.

*A.* In April, 1904.

*Q.* How did your employment come about, Mr. Howard?

*A.* Without going into how he may have learned of me, I received, I think, a telephone message to please call, which I did.

*Q.* Call where, Mr. Howard?

*A.* Upon the President of the Borough, Mr. Ahearn.

*Q.* Did you call on the President of the Borough?

*A.* I did.

*Q.* At what time?

*A.* Early in April.

*Q.* Can you fix the date. You are at liberty to use your notes, if you wish.

*A.* There were several interviews before I began to really serve, and he had me called up several times. I could fix the date exactly from the time I began to charge up my ledgers, which I think was April 28th, therefore perhaps April 11th or 12th there was some correspondence, just previous to that date.

*Q.* Were you retained by the Borough President?

*A.* I think in the sense you ask it. I was asked by him to serve. I received no retainer. I send in bills for services after they are done.

*Q.* What was the first service you rendered the President of the Borough?

A. I acted as questioner. I do not know whether that is English or not. I was Vice-President of the International Jury of Awards, Paris Exposition, and the members of the juries employed trained men to ask the questions. In France the lawyer does not ask the questions, the engineer asks them, and I was his questioner to ask questions of various asphalt or would-be asphalt contractors and old asphalt contractors in the Governor's room, so as to get at facts for the President of the Borough, and through him for the Board of Estimate and Apportionment.

Q. Can you name the date on which that service was rendered?

A. I think it was April 28th, 1904. If you wish to be exact, I better take my notes, but I will speak from memory, if you wish.

Q. I should prefer it to be exact.

A. I have my letter books here which contain everything; by that I mean letter-press books. (Referring to book.) These are copies of letters to the President of the Borough and those whom he directed me to write to at times.

Q. What I asked you was to pick the date on which you rendered that service which you have described to the President of the Borough.

A. I know that it was on April 26th that I was in the Governor's room asking these questions, by my memorandum of that date, not the 28th.

Q. After that can you tell us what the next service was that you rendered the President?

A. He had written me or telephoned me to let him know my telephone number, and I was telephoned for at intervals, almost every day, and about May 10th or 11th I had a conference with him, and he asked me to lay out some programme or plan for the improvement of the asphalt pavements of this city, to maintain them in good order.

Q. Did you do so?

A. That I confirmed on May 11th, either the evening of the day I left him or the next day, on May 11th, 1904, I wrote him confirming what I had stated to him verbally, because he said, "Please put this in writing," after we talked, which I always did. That was a programme or project of engineering work that I would recommend to him to make the asphalt pavements better laid and better maintained.

Q. (Handing paper.) Is this the letter you wrote the Borough President?

A. Yes.

The letter was admitted in evidence and marked "Exhibit No. 103."

Exhibit No. 103 is as follows:

J. W. HOWARD,  
Consulting Engineer, No. 1 Broadway, New York.  
May 11th, 1904.

Hon. JOHN F. AHEARN,  
President, Borough of Manhattan,  
City Hall, New York.

DEAR SIR:

#### ASPHALT PAVEMENTS:

In response to your request and confirming my verbal answer in regard to a plan of action for the improvement of the asphalt pavements of the City, I suggest as follows: New specifications and forms of contracts should be prepared setting forth:

1st, The quality of asphalt and other materials which would be acceptable to the City, with fully described tests to which the materials must conform.

2nd, The compositions, methods, treatment and temperatures, etc., according to which the asphalt pavements shall be prepared at the plants or works of the contractors.

3rd, The methods, processes and requirements according to which the pavements must be spread, compressed, laid and finished on the streets.

4th, The requirements for inspection (A) at the plant (B) on the street (C) in the laboratory.

5th, Forms of contracts and instructions to bidders should be carefully prepared to correspond to the above general divisions of the specifications.

I hereby respectfully tender my services as consulting engineer and asphalt expert, either to the Board of Estimate and Apportionment to act with and assist the consulting engineer of the Board of Estimate for Greater New York; or if prepared, I would take pleasure in serving as consulting engineer and asphalt expert to co-operate with and assist you, the Commissioner of Public Works, the engineer of Highways, of the Borough of Manhattan, to serve at such times and places as I may be called upon. I beg to suggest that the first services should be to prepare forms of specifications and contracts for asphalt pavements and submit them to you or your Department for approval.

Respectfully yours,

JAMES W. HOWARD,  
Consulting Engineer, Asphalt Expert.

Stamped on Exhibit No. 103 is the following:

Office of the President of the Borough of Manhattan, received May 12th, 1904.

*Q.* Did you receive any acknowledgement of that letter, Mr. Howard, the latter of May 11?

*A.* Yes, per secretary, for Mr. Ahearn is a busy man; the secretary answered for him.

*Q.* Have you that letter with you?

*A.* That is the letter, May 12.

Q. This is the letter which you received in answer to your communication of May 11?

A. I so understand it. I haven't read the letter; I just pulled it out of my files. Read it and see.

Q. Will you read it and see whether it is or not?

A. It is, for it refers to it as answering mine of the 11th.

The letter was received in evidence and marked "Exhibit No. 104."

Exhibit No. 104 is as follows:

CITY OF NEW YORK,  
OFFICE OF  
THE PRESIDENT OF THE BOROUGH OF MANHATTAN,  
CITY HALL.

JOHN F. AHEARN,  
President.

BERNARD DOWNING,  
Secretary.

May 12, 1904. K

J. W. HOWARD, Esq.,  
No. 1 Broadway, City:

DEAR SIR—I am directed by the President to acknowledge receipt of yours of the 11th instant, and to say that the matter of the request it contains will receive his best consideration.

Very truly,

BERNARD DOWNING,  
Secretary.

Stamped on Exhibit No. 104 is the following:

J. W. HOWARD, Rec'd May 12, 1904

Ans'd . . . . .

Q. What was the next service that you rendered, Mr. Howard, if any?

A. Every few days something, but the next thing that I can recall now of any real importance was on July 8, I think, 1904.

*Q.* What was that?

*A.* That was quite an important conference with Engineer Olney.

*Q.* Concerning what?

*A.* I called at Olney's request. He seemed to be in a quandary on wood blocks; stated he had no experience with them and was studying up the subject. He was a very lovable man, and I sat down with him an hour or two and talked wood blocks. He showed me some specifications he had. I ran my eye over them, and said they were not good, and I would criticize them. He suggested, after talking with me, certain changes it might be wise to have made. I said, "It would be a good thing; I will write you about that." I went to my office, wrote him the next day a brief letter.

*Q.* Wrote whom?

*A.* Engineer Olney. I had been asked by Mr. Ahearn to serve Olney at any time, and no other persons than he and Olney.

*Q.* On what subject was that letter?

*A.* The letter would show for itself. I know there was some wood pavement spoken about in it, and I think I had another subject.

*Q.* What was the date?

*A.* July 9, 1904.

*Q.* (Handing paper) Is this the letter?

*A.* Yes. You will see, it goes by captions. The first caption is wood block pavement, the second filler for joints of granite blocks.

*Q.* That is the letter?

*A.* It is the letter. I dictated it to my stenographer; signed it with a rubber stamp, because I was busy.

The letter was admitted in evidence and marked "Exhibit No. 105, April 24, 1907, C. B."

Exhibit No. 105 is as follows:

J. W. HOWARD,  
Consulting Engineer, No. 1 Broadway, New York.

July 9th, 1904.

GEORGE R. OLNEY,  
Chief Engineer, Bureau of Highways,  
Borough of Manhattan, New York.

DEAR SIR:

### WOOD BLOCK PAVING.

After our conference yesterday on wood block pavement in New York I have examined the present specifications and find that several points could well be changed and improved, particularly on lines you mentioned. Certainly the champing or groove must not be allowed, as it causes the blocks to crush or "brush" more rapidly than with square top blocks without grooves.

As for a tar filler, it is excellent and better than Portland cement, provided the tar is made to penetrate the entire or almost the entire depth of the joints between the blocks, which is a difficult thing to do unless the blocks are at first loosely laid and the filling with tar is done when the blocks are perfectly dry and the weather at least a little warm.

### FILLER FOR JOINTS OF GRANITE BLOCKS.

I was so strongly impressed with the utility of using any paving joint cement for granite blocks other than that which long experience has shown to be good, that I wish to confirm my opinion that any paving joint cement made with Trinidad or any other asphalt affected by water or containing such asphalts would be a mistake. There is no point where water has a better opportunity combined with



acids and other street filth to rot the paving joint cement more surely and more rapidly than between granite paving blocks, or in fact between any kind of paving blocks.

There are simple and convincing tests which I can quickly make in my laboratory of the comparative injury done by water to different asphalt and paving joint cement. It might be well if samples of paving joint cements offered could be handed me for brief comparative tests at any time if needed.

Sincerely yours,

J. W. HOWARD,  
Per R.

*Q.* What did you do after that, Mr. Howard? What other service did you render?

*A.* The next one I recall now would skip to November 30, 1904, when I was working on some new pavement specifications, asphalt pavement specifications; that is, forms of contract specifications and complete documents to lay and maintain asphalt pavements in The City of New York.

*Q.* What took place on November 30?

*A.* I understood from Olney by telephone, or had some interview, that he was in a hurry to get them before Mr. Lewis put one in, to compare them, so I wrote on November 30th, 1904, that I would have them very soon.

*Q.* Who asked you to prepare those?

*A.* They were part of the programme and instructions, as I understood, from Mr. Ahearn.

*Q.* You mean it was Mr. Ahearn himself who had instructed you to prepare those?

*A.* He approved the plan I had drawn up and handed him under date of May 11. I was in the Council Chamber, and he stood at my elbow and sent for Olney. He said, "You work out the details with Mr. Olney; you two

get that plan up," and I checked them off as fast as he approved.

*Q.* Were you then in process of preparing these specifications?

*A.* November, 1904, I was in process of preparing them, working night and day, with five or six extra stenographers.

*Q.* You say on November 30, 1904, you wrote a letter to Mr. Olney about that matter?

*A.* I did.

*Q.* (Handing paper) Is this the letter?

*A.* That is the letter I wrote him on that date; that is the letter itself.

The letter was admitted in evidence and marked "Exhibit No. 106, April 24, 1907, C. B."

Exhibit No. 106 is as follows:

"J. W. HOWARD,

Consulting Engineer, No. 1 Broadway, New York.

November 30th, 1904.

George R. Olney, Esq.,

Chief Engineer, Bureau of Highways,

Borough of Manhattan, N. Y. City.

DEAR SIR:

CONTRACT, SPECIFICATIONS, etc., for  
Asphalt Pavements:

I will hand you not later than next week a complete manuscript for contracts and specifications for asphalt pavements, including the usual information for bidders, form for bidding, sureties, etc., all of which I am rapidly preparing so that each one will be in keeping with the rest and so as to embody, as far as possible, the latest and best requirements, of good asphalt pavements, properly laid and properly maintained.

Calls to other cities, New Orleans, Boston, etc., have prevented me finishing the above manuscript for you and the President of the Borough until the present time. I understood that the manuscript was not needed until during the winter, when the asphalt paving problem will again be taken up by the Borough of Manhattan and the Board of Estimate and Apportionment.

Respectfully yours,

J. W. HOWARD,  
Consulting Engineer on Pavements."

*Q.* What was the next thing you did for the Borough President, Mr. Howard?

*A.* Stayed in my office, excluding everybody, and finished those specifications, and handed them in on December 8, with a letter of transmission.

*Q.* To whom?

*A.* Of course, the chief engineer; I, being an engineer, reported to the engineer, he being the engineer of the President of the Borough of Manhattan.

*Q.* Did you hand these new specifications to the chief engineer?

*A.* I did, George R. Olney.

*Q.* Did you send a letter transmitting them?

*A.* Always, just as we do in military life, transmit my documents with a letter of transmission. That was a bound volume and the letter of transmission was separate.

*Q.* Was that letter addressed to the chief engineer?

*A.* I think so; it should have been.

*Q.* (Handing paper) Is this the letter?

*A.* This is the letter that transmitted the complete asphalt paving document and contract forms, forms of bids, specifications, etc.

*Q.* This is the letter you wrote Mr. Olney on that date?

*A.* I did. I attached the card. That is a little French plant; you can't get it here, so it identified it.

The letter was admitted in evidence and marked  
 "Exhibit No. 107, April 24, 1907, C. B."

Exhibit No. 107 is as follows:

"J. W. HOWARD,

Consulting Engineer, No. 1 Broadway, New York.

December 8th, 1904.

Mr. GEORGE R. OLNEY,

Chief Engineer, Bureau of Highways,  
 Borough of Manhattan, N. Y. City.

DEAR SIR:

# SPECIFICATIONS FOR ASPHALT PAVE- MENTS:

I have the honor of handing you a new manuscript bound and numbered from 1 to 93 pages, for new and complete forms in regard to asphalt paving, etc., as requested. The forms contain what is necessary, in my judgment, under the different headings: Title, Resolution of Board of Est. and App., Information for Bidders, Bid, Sureties, Contracts, Specifications. I have prepared each part with reference to the others and endeavored to confine to each part that which properly belongs in it.

The sections of the contract are numbered with Roman numerals and the specifications with Arabic numbers so as to facilitate reference. I have introduced a brief table of contents on page 20, the value of which is evident and especially as it indicates the pages upon which city officials and the contracts must make records of signatures.

I have introduced the feature of having the period of maintenance terminate on June 1st because that enables the City to properly inspect and the contract to properly repair the pavement during good weather in April or May. The clause in the old specifica-

tions excepting certain months is not as well as to give a definite month. It will be of benefit to the City to have the contracts all terminate June 1st for the above and other reasons.

I have endeavored to prepare the above forms for the contracts, specifications, etc., so as to embody all that which is the best practice to date in the important cities of America and Europe.

Sufficient physical and chemical tests and requirements are set forth to assure the City of good materials and good workmanship, and at the same time be sure of competition.

The above forms are drawn so that they can be used in any Borough of the City for asphalt pavement, whether it is repavement or assessment work, including the usual accessory work of curbstones, abutting pavements, etc.

After you have had time to read the forms, I will be glad to go over them with you.

Respectfully yours,

J. W. HOWARD,

Consulting Engineer on Pavements.

Manuscript delivered under separate cover."

Mr. MITCHEL—The Commission desires to have it spread upon the record that by agreement with the counsel for the President of the Borough subpoenas were not served upon the chief engineer or the President of the Borough for the production of these documents, upon the consent of counsel to produce such of them as could be found. Counsel has informed the Commission that the form of specifications requested could not be found.

Q. Mr. Howard, have you with you a copy of the specifications which you transmitted to the chief engineer on December 8?

A. I have two in this room, or the text of that copy. The one I have in my hand, with the black cloth cover and red leather backs bound with rivets, is an absolute duplicate in every respect, including the cover. The other one, with the red seal on it, is the duplicate of the text, except what is on the outside of the paper, because this one has been used by me in making up specifications for other cities. It has no stiff cover, but everything within the covers is a duplicate of what I handed to Mr. Olney in his room in the Park Row Building and which he put in his desk. He said he would take them home and study them, and see me later about it if there were any points he did not understand.

The book was received in evidence and marked  
 "Exhibit No. 108, April 24, 1907, C. B."

Q. Was there anything else which you had been directed to do, pursuant to your plan, by the Borough President?

A. Yes.

Q. What was it?

A. In my various conferences with Mr. Ahearn, who tried to learn something of the art, but not being an engineer, told me to go into details with Mr. Olney, Mr. Olney being an engineer. I had told them a good deal about the errors and omissions and improvements needed in connection with the 1903 or 1904 specifications, now known as 1904, and they would ask me to reduce that to writing, and I suggested that on the left-hand pages I paste the old 1904 specifications and on the right my criticism of them, approval or suggestions.

Q. Right-hand pages of what?

A. Of a critique, with suggestions in respect to the 1904 asphalt pavement forms of contract, bids and specifications, of The City of New York, including the Borough of Manhattan, which had been slightly changed in Clause 61 by some resolution introduced, without my knowledge of whom, except I now know who did it, on Clause 61, but outside of Clause 61 they were the 1904 specifications.

for the entire City of New York, and with Clause 61 modified they were for the Borough of Manhattan.

*Q.* Did you in this connection request any forms from the department?

*A.* Yes.

*Q.* On what day?

*A.* I had gone there to get them. I needed several sets, because in pasting them in one side I lost, and I wanted a duplicate. I needed four sets, or four complete sets of contracts and specifications, so I dropped a note to Mr. Olney.

*Q.* When?

*A.* It was in December. I have a memorandum that it was on December 19, 1904, asked him to send them, which he did by a messenger, a large, stout man; sometimes one man came and sometimes another; he sent them frequently.

*Q.* (Handing paper) Is this the letter which you sent Mr. Olney on December 13?

*A.* Yes. The insertions are made "1904" each time in my own handwriting. That is the letter.

The letter was received in evidence and marked  
"Exhibit No. 109, April 24th, 1907, C. B."

Exhibit No. 109 is as follows:

"J. W. HOWARD,  
Consulting Engineer, No. 1 Broadway, New York.  
December 13th, 1904.

GEORGE R. OLNEY, Esq.,  
Chief Engineer, Bureau of Highways,  
Borough of Manhattan, Park Row Building, City.

DEAR SIR:

PRESENT 1904 FORM OF CONTRACT AND  
SPECIFICATIONS, ETC., FOR ASPHALT  
PAVEMENT:

Will you kindly send me by messenger or mail two copies of the present 1904 asphalt pavement form of

contracts and specifications. I will then carefully note in writing in connection with each paragraph that which in my judgment is defective, inadequate or otherwise not best. You will thus be able to compare the old present 1904 ones with the new forms which I finished and handed you on December 8th, and judge of the reasons why I have inserted the requirements in the new.

The old ones are the result of some 'patch work,' and, as you remember, last spring it was found possible to then make only a few changes, raising the quality of refined asphalt to at least ninety per cent. purity, etc.; but other desired changes, or in fact the introduction of new complete and up-to-date asphalt specifications could not then be accomplished. The understanding was that during this fall and winter the President of each Borough, through their engineers or otherwise, would come forward with complete new forms.

I think that the forms which I prepared under the request of President Ahearn, to co-operate with you in connection with paving, will enable you to present Mr. Ahearn with a complete manuscript so that he can propose to the Board of Estimate and Apportionment forms of asphalt contracts, specifications, etc., suitable for the entire City, and if he cannot succeed in getting them for the whole City, he can at least have them adopted for the Borough of Manhattan.

Sincerely yours,

J. W. HOWARD,

"Consulting Engineer on Pavements."

Q. Did you complete that form?

A. I did.

Q. What did you do with it when complete?



A. Handed it to Mr. Olney in person, with letter of transmission of December 30, 1904.

Q. A letter of transmission——

A. No, it was January 31 that I completed that form and delivered it. There were a lot of other things in between, but that form was completed and delivered on January 31, 1905.

Q. On January what?

A. January 31, 1905.

Commissioner MITCHEL—The Commission desires the stenographer to note that this letter of January 31, of which the witness has just spoken, is another one of those requested of the counsel for the President of the Borough and which could not be found.

Q. Mr. Howard, have you a copy of the letter of January 31 about which you have just testified?

A. I have two, one in my letter press which is a copy of the one actually sent, and the carbon copy pasted in my duplicate of my critique. This is the letter press copy of the one handed to Mr. Olney with the report.

Q. Will you read that copy to us?

A. Of course my printed letter head is not on here; this is all that is in the letter book, "January 31st, 1905"——

Q. Is that your regular book?

A. Certainly, all letters are in here in that year, a great many to everybody.

Q. That is your regular business letter book you keep in your office?

A. White canvas covered, for my letters; this is on page 172 of my letter press book; there are no secrets in my office, an engineer's office. The letter reads:

"January 31st, 1905.

Mr. GEORGE R. OLNEY, Esq.,  
Chief Engineer, Bureau of Highways,  
Borough of Manhattan, New York City.

DEAR SIR—As requested by you and under instructions from the President of the Borough to assist you when desired and possible in paving matters, I transmit herewith my report, with comments on the forms and requirements of the asphalt pavement notices, bids, contracts, specifications, etc., of the year 1904.

This is based upon long, careful, detailed study of the forms and other considerations from the standpoint of study and experience in important cities during many years connected with pavements.

I have endeavored in each case where I have found wrong requirements, errors, etc., not only to criticize them, with a reason why they are wrong, but to suggest a substitute requirement, etc., in each case, thus making the report as complete as possible.

The report is arranged with the original printed forms on the left-hand pages, and the criticisms and recommendations on the right-hand pages, thus facilitating its use.

Very respectfully yours,

JAMES W. HOWARD,  
Consulting Engineer on Roads, Streets and Pavements."

There is a note below: "Report was bound and had fifty-eight pages, and on the left there is 'E. & O. E.' "

Q. Mr. Howard, when did you hand in that letter, or did you send it through the mail?

A. I handed them that letter. I took great pride in that document, and I would send nothing of the kind through the mail: it would not be fair or just.

Q. Did you hand over the document to the chief engineer at the time?

A. I did, in his room in the Park Row Building.

Q. (Handing book) Is this the document which you handed to him?

A. That is the document. I have the twin. There is the letter they could not find pasted in the front. They do not seem to read the documents.

The book was admitted in evidence and marked "Exhibit No. 110, April 24th, 1907, C. B."

Q. Did you in any way bring to the attention of the Borough President the delivery of these manuscripts to the chief engineer?

A. I did.

Q. How?

A. By conversation, also by letter.

Q. When did you write him a letter bringing it to his attention?

A. The conversation was on December 30, 1904, in reference to these documents, finished and in preparation. The letter was on February 9, 1905.

Q. (Handing paper) Is this the letter?

A. It is the letter, attached to a filing folder. The folder is not mine. It is an official folder of the City.

Q. But that is your letter?

A. All except some initials in the left-hand corner, and the stamp up on the right-hand corner reading "Office of the President of the Borough of Manhattan, Received"—there is a double date there, "February 9, 1905, and February 10, 1905."

The letter was received in evidence and marked "Exhibit No. 111, April 24th, 1907, C. B."

Exhibit No. 111 is as follows:

J. W. HOWARD,

Consulting Engineer, No. 1 Broadway, New York.

February 10th, 1905.

Hon. JOHN F. AHEARN,

President, Borough of Manhattan,

New York City.

DEAR SIR:

### PAVEMENTS.

Because the season to have the pavements of New York put in repair and for granting new contracts is near at hand, with but a short time to decide upon certain important matters connected with forms of contracts, requirements of specifications, etc., especially for asphalt pavements, in the interest of the Borough of Manhattan, and of the entire City, I write to suggest that an early conference at a mutually convenient time seems advisable, when, among other points, the following could be considered.

The asphalt forms of contract and specifications of 1904; their defects of omission, unsafe requirements, with reasons, etc., sets forth in a special report from me to the chief engineer of the Bureau of Highways;

New model forms of asphalt pavement contracts, specifications, etc., complete manuscript prepared by me and accompanying report of chief engineer, Bureau of Highways;

Advisability of your obtaining in advance, or suspending decision in regard to any new forms of asphalt contracts or specifications, prepared by or under direction of Engineer of Board of E. and A. and having me to report to you in detail on the same, with reasons for approval or disapproval in its requirements;

Subject of 'oil-asphalts' which are made from both asphaltic and other oils and the need of protection against them as a class, but possibly admitting the use of any one of them if they can meet definite, complete, safe, technical tests, to be described in full, with tests I can furnish to those whom you may direct. Other matters not necessary to enumerate here.

I take great pleasure in continuing you and the chief engineer of the Bureau of Highways as requested by you, whenever called upon or needed in the interest of durable and economic pavements.

Kindly give me one or two days' previous notice, as I am often called to other cities.

Respectfully yours,

J. W. HOWARD,  
Consulting Engineer, Roads, Streets, Pavements."

The above exhibit bears stamp as follows: "Office of the President of the Borough of Manhattan, Received February 10th, 1905."

*Q.* Mr. Howard, you referred a moment ago to the conference of December 20, 1904. What was that conference?

*A.* I had these conferences at intervals. It was a general conference with Mr. Ahearn and Mr. Olney in the office of the President of the Borough, upstairs in this building, the little cubbyhole he has to work in. He sent for Olney after I arrived. We took up various topics.

*Q.* What was the subject matter of that conference?

*A.* That is easy enough to tell. Before calling on an important official, whose time is valuable, I reduce it to a brief memorandum, each line showing the topic to be taken up. It pleases important men and it enables me to be brief and get out. I have the memorandum here I used that day, for I file those memoranda always afterwards.

*Q.* Read from your notes in answer to that question. What was the subject matter of that conference?

*A.* This is stamped and dated, filed in my office December 30, 1904. It is on blue paper.

*Q.* Merely use that for refreshing your memory. Just refresh your memory and answer the question, what was the subject matter of that conference of December 30?

*A.* The following topics: 1904 specifications, defects, etc. Show him manuscript. New specifications, show manuscript. Special report on oil, asphalts, where and how made, how to test them. Get Lewis—that means Engineer Lewis, of the Board of Estimate and Apportionment—get Lewis' proposed forms of contract and specifications and report on them to Mr. Ahearn. The next topic, a city paving plan, new or rent one. Where to place it. What asphalts to buy. Order repairs made on delinquent contracts and pay for the work from reserve funds. I suggest some company.

*Q.* Was that a suggestion you made to the President of the Borough at that time?

*A.* It was, to go ahead and repair and take these funds, and engage some one going company to do the work, and pay them and take it out of the other people's money. The next topic, do not permit B. A. P. Company or any other to get hold of retained funds. Of course, that means money retained by the City under the long term guaranties. Next topic, get City, or at least Manhattan, to adopt forms of asphalt paving contracts I have offered. Next, is there a leak through any employee at the President of the Borough's office?

*Q.* Were these subjects the ones which you discussed with the Borough President at that time?

*A.* I went over them and spoke of them, but discussed practically three, as my red pencil marks show.

*Q.* Those three are what?

*A.* The three we talked about or discussed at any length were special reports on oil asphalts, where and how made, how to test them. That was the special thing.

They did not want me to give those tests to anybody but just them; they have never asked for them since. The next thing discussed at some length was, "Get Lewis' proposed forms of contracts and specifications and report on them to Mr. Ahearn." Mr. Lewis was to prepare some through the winter and submit them. That was by order of the Board of Estimate and Apportionment. The next discussed was, order repairs made on delinquent contracts and pay for the work from reserve funds. I suggested some company.

*Q.* Now, Mr. Howard, taking those up. As to the oil asphalts, did you suggest making such tests and inquiries?

*A.* Why, again and again.

*Q.* Will you tell us what reply you received to that?

*A.* Generally, "Not yet," sometimes silence; I saw the subject was not agreeable to them.

*Q.* When you speak of them whom do you mean?

*A.* Mr. Ahearn and Mr. Olney, to whom I always reported promptly.

*Q.* Were you ever asked to make that report pursuant to your suggestion?

*A.* On oil asphalts, no; I was very anxious to put the report in, because I did not want my name known with having shut out a thing without having any reasons for it, except a general reason. I wished to be on record with a test to let any Portland cement in or any asphalt cement in, or the use of any Portland cement or any asphalt cement which would meet definite clear tests.

*Q.* Now, as to the suggestion to make repairs out of retained funds, what reply did that suggestion meet with?

*A.* I think Mr. Ahearn said that it would involve possibly some lawsuits and they did not care to get into that; they might be stopped by mandamus proceedings, but they would do it eventually if they had to.

*Q.* It was after that interview of December 30 that you submitted to Mr. Olney your critique which is in evidence?

A. Yes, but you must remember these manuscripts were shown at intervals as they progressed; they had been in pencil form, and these were reduced to writing, everything I had done in the way of criticism to date, that I might give them the proofs of my work and not be employed any more. The complete critique, as we call it here to-day, with the letter of transmission of January 31, 1905, was finished in its present bound form, leather back, and handed in subsequent to that conversation.

Adjourned to April 26, 1907, at 10.30 A. M.

Next exhibit, No. 112.

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NEW YORK, April 26, 1907.

Met pursuant to adjournment.

Present—Commissioners ILERTLE and MITCHEL, and Mr. BRUERE.

Commissioner MITCHEL—I call the Manufacturers' Trust Company.

Mr. MILLARD—I am the counsel in this proceeding for the Manufacturers' Trust Company, or represent them. Do you wish the officer to take the stand?

Commissioner MITCHEL—I wish the officer to take the stand.

JAMES E. KEELER, called as a witness, being duly sworn, testified as follows:

*Examined by* Commissioner MITCHEL:

Q. Are you an officer of the Manufacturers' Trust Company, Mr. Keeler?

A. Well, of the Title Guarantee & Trust Company, the successor of the Manufacturers' Trust Company.



*Q.* The Title Guarantee & Trust Company is the successor of the Manufacturers' Trust Company?

*A.* It is.

*Q.* What office do you hold in that company?

*A.* Assistant manager.

*Q.* Is your company the custodian of a certain trust deed executed by the United States Wood Preserving Company to the said Manufacturers' Company, under date of July 9, 1902?

*A.* Yes, sir.

*Q.* Was your company served with a subpoena to produce that trust deed before this Commission this morning at 10 o'clock?

*A.* Yes, sir.

*Q.* Have you that trust deed with you?

*A.* No, sir.

*Q.* Why not?

MR. MILLARD—I would like to make a statement, if I may, on behalf of the witness.

Commissioner MITCHEL—What is the name, please?

MR. MILLARD—Millard.

Commissioner MITCHEL—You appear on behalf of whom?

MR. MILLARD—Of Steele, Otis & Hall, counsel for the Title Guarantee & Trust Company, Bank Department. Owing to the peculiar relations here of trustee, the Title Company on advice of counsel feels that they are called upon to question the authority of the Commission to demand the production of these documents. If the consent of the mortgagor in this case, the United States Wood Preserving Company, can be obtained, why, we have no objection to producing the papers.

Commissioner MITCHEL—Is that the sole ground upon which the refusal is made to obey the subpoena of this Commission?

Mr. MILLARD—Objecting to their authority, questioning their authority under the various acts under which they seek to examine the witness.

Commissioner MITCHEL—The Commission rules that this is not a sufficient ground for a refusal to obey the subpoena of the Commission, and must instruct this witness to produce the trust deed in question, and warns the witness that a failure to produce it will result in taking steps to compel its production. The Trust Company stands in contempt of the Commission, unless the trust deed is produced.

Mr. MILLARD—I may take an exception to the ruling of the Commission on that point?

Commissioner MITCHEL—I have nothing further to ask the witness, on his refusal to produce.

Mr. MILLARD—May I have that subpoena?

Commissioner MITCHEL—Certainly.

BENJAMIN F. WELTON, called as a witness, being duly sworn, testified as follows:

*Examined by Commissioner MITCHEL:*

Q. Mr. Welton, what is your business?

A. I am a civil engineer.

Q. Where are you employed?

A. With the Commissioners of Accounts, New York City.

Q. Have you become familiar in the course of your duties there with the form of contract and specifications now in use by the Bureau of Highways of this borough?

A. I have.

Q. For contracts for paving with wood block?

A. I have.

Q. Is this a copy of that contract and those specifications?

A. It is.

*Q.* Where did you procure that, Mr. Welton?

*A.* From the Bureau of Highways in the Borough of Manhattan.

Commissioner MITCHEL—That is all.

The paper identified by the witness was admitted in evidence and marked "Exhibit No. 112, April 26th, 1907, C. B."

JAMES W. HOWARD, recalled for further examination, testified as follows:

*Examined by Commissioner MITCHEL:*

*Q.* Mr. Howard, will you tell us generally what the nature was of that document which you described as a critique and which you handed, as you say, to the chief engineer of the Department of Highways on January 31, 1905?

*A.* It was a document in support of the complete contract forms and specifications that I had handed in in January, so that Mr. Abcarn and his Bureau of Highways should be able to see why changes were made, what were the defects and omissions in the 1904 specifications. The one I handed in in January was the complete form for contracts and specifications for asphalt pavements, particularly sheet asphalt pavements, and this is a critique of the 1904 one by which the one that I had handed in in January was to be replaced, or I understood that the department wanted something to replace the 1904.

*Q.* Mr. Howard, I show you Exhibit No. 92, and ask you if that is the form of specifications which you criticized?

*A.* The critique is a bound volume of 58 pages; on the left-hand pages are pasted the printed duplicates of this Exhibit 92 that you now hand me.

*Q.* Is that Exhibit 92 a copy of the specifications which you criticized?

A. It is an absolute duplicate, beginning 350-64-2,500, at the head of mine, and it is the same, showing that it went off the same press, at the same time, and was ordered by the City at the same time. I want to call your attention to the fact that as handed to me the paster on paragraph 61 had already been put in, and it was in this form that you now hand it to me that it was given to me—not given to me; several copies were sent me to criticize, one of which I pasted in here. That referred to section 61 of the specifications.

Q. Mr. Howard, I show you Exhibit 110. Is this a copy of your critique which you handed to Mr. Olney, the chief engineer, on January 31, 1905?

A. It is, being a duplicate of the one I had in my hand when I was speaking a moment or two ago.

Q. Now, Mr. Howard, will you please indicate a few of the principal criticisms which you make of the specifications which you examined?

A. Mr. Commissioner, \$24,000,000 worth of pavement in this city, and about ten or twelve million dollars' worth were asphalt pavements at about that time; therefore these criticisms are very numerous and long. I was trying to help them carry on an industry of keeping good pavements in this city up to some twelve million, and perhaps laying more. Now, I cannot quote all these criticisms; it would take all day.

Q. I want you merely to pick out those which you consider the most important and tell us what those criticisms were.

A. This criticism does not entirely condemn; it condemns in part, and always offers a substitute, for it is wrong to condemn without offering a substitute.

Q. In indicating the criticism made, will you please also indicate the substitute outlined?

A. The first page opens with a letter of transmission. The second page is the new title that I suggested, with an index of contents on it. Heretofore The City has had no index of contents of large contracts, and nobody could

find anything except by long search. Page 3 is some remarks. On page 4 I begin my criticism, comments and approbation in respect to the 1904 specifications. When I number pages there—the right-hand pages are the only ones which are numbered. On the left-hand opposite page there is no number, that being the place where the old printed form is pasted. The document is printed and shows for itself, but I will merely read at certain points a few of the criticisms, suggestions and approvals. I will omit all references as to changes advised by me for clearness and definiteness and confine myself only to ones changing the sense.

*Q.* Will you begin with the recommendations as to binder, the criticisms of that class.

*A.* I cannot do that. I have to take it seriatum.

*Q.* Then proceed.

*A.* Because I made a slight rearrangement of the specifications for sake of clearness. I will omit all reference to criticisms showing duplications and many other difficulties and omissions in the following portion of the document, in its title, and information for bidders.

*Q.* Just get right down to the actual criticisms.

*A.* That is what I am doing. I will omit all reference to what I reported and advised in regard to bid or estimate. I will omit for the present, unless you recall it, anything in reference to the contract portion, although the contract portion as now used in New York City and as here criticized contains a great many things which are engineering and technical and belong in the specifications. I will now turn to page 36, which is the beginning of the portion of page 32 of the printed document, and on my right-hand page, my page 36, are the criticisms and suggestions. To show the looseness of the old specifications, they use the word "street" all the way through, and I changed that to roadway. You do not pave streets; that means sidewalks, areas, and everything. I will make no more mention of these small matters.

In the specifications of 1904, the specifications themselves, there was no enumeration in logical or in any other order of the work to be done, so I recommended a list of the things which might be needed to be done on any contract, but which in each specific contract would be filled out in the quantities and so forth by the engineer. That appears on pages 36 and 37, which covers that completely. The document shows for itself.

Any one reading this will notice that the kinds of asphalts are divided into two groups, in which I suggested, the rock asphalt class and the asphalt cement class, the rock asphalt being the natural rock and the cement being made of sand and stuck together with asphalt cement, and so forth.

*Q.* In that connection, what did you criticize and recommend in the old specifications?

*A.* They were indefinite and indeterminate and conflicting, and I recommended something precise and definite and defined.

*Q.* In what classes were they——

*A.* That will appear as I come to them, as I go on.

*Q.* Now, Mr. Howard, before you pass on to anything else, will you fix the manner in which that indefiniteness exists which you have just mentioned, and fix the page on your criticism on which you recommend the change?

*A.* I will have to go away forward to find that. This was a preliminary recommendation at this point in these specifications, where a statement was made of what was needed.

*Q.* Before we go any further, will you take up in order the salient criticisms which you made, without any preamble, and mention in each case what you criticized and what you recommended, from this point?

*A.* Using my judgment as to a few of the salient points, I will. The document is too long to give them all.

*Q.* Just begin with the first of the salient features.

4. On page 32, paragraph 6, of the old specifications, we find in this an item as follows; I am reading from the print: "When the old material has been removed, that to be used again shall be compactly piled on the side and the roadway graded to the required shape and depth below the proposed finished pavement. All unsuitable material shall be removed and replaced with that which is satisfactory, etc." The critique reads as follows, on page 39 of the critique: "This paragraph does not cover the different kinds of foundations which are and may be used; that is to say, the preparation of the roadbed for different foundations of concrete, relaying old blocks, etc. I therefore suggest a substitute for this section, to read as follows: 'The old pavement or other materials, whether earth, rock, trees, roots or other matter where directed, are to be removed and piled or disposed of as required, and the roadbed excavated of all subsoil or other matter, whatever may be its character, or filled with suitable and approved material so as to provide a uniform subgrade or subsurface of a proper height to permit either the proper laying thereon of either a cement concrete foundation, or making a foundation by relaying or by regulating and adjusting the old stone or other blocks of the old pavement as required; and so as to provide that the top surface of the foundation shall be in all cases as many inches below the finished surface of the asphalt pavement as the class and thickness of the asphalt pavement surface layer, with or without binder, may require, and parallel to the finished asphalt pavement; except that along and by car tracks or elsewhere, as hereafter set forth, the excavation shall be sufficiently deep to permit the laying of such granite or other pavement on concrete as may be required; and material which is spongy or objectionable and not admitting of satisfactory rolling or tamping shall be removed, and such new material as may be necessary to replace the same and bring the subgrade to the proper grade shall be supplied and placed by the contractor. All material for filling shall be good, wholesome

earth, or approved material, free from foreign animal or vegetable matter, and be placed in layers not more than six inches in depth, and each layer rolled or tamped as below described. Great care shall be exercised in shaping the roadbed to secure a uniform surface parallel to—that is, to secure a uniform surface parallel thereto—‘and the required depth below, the given grade and crown of the finished asphalt pavement, according to the kind or class and thickness of foundation and surface or other portions of the pavement to be laid on the foundation, as hereafter specified.’ ”

This illustrates the old brief paragraph which defined nothing. What I have just read shows the definiteness. It is absolutely necessary that the foundation, concrete or other foundation, rest on a firm and properly safe subsoil. The old ones did not describe it, and I suggested and attempted to do so. You can be the judge.

*Q.* Mr. Howard, will you turn, please, to Section No. 56 of the old specifications, and tell us whether you criticized that section and how you criticized it? I will change that by asking you to turn to Sections 55 and 56.

*A.* You mean omit from where I am reading several pages and go on to there?

*Q.* Yes, if you please.

*A.* Just ahead of the special criticism of that Section 55 were two notes which appear in this, which refer to it, and you can read it any time you wish this criticism of that.

*Q.* Will you tell us what that criticism is, but first, what “that” is, and then what the criticism is.

*A.* On page 40 you find this Section 55. My critique reads as follows—

*Q.* Will you first tell us what Section 55 is?

*A.* Section of the printed specifications reads as follows: “The pavement proper shall consist of a binder course one inch in thickness and a wearing surface two inches thick and equal to the pavement mixture here-



inafter described. Before laying binder the surface of the foundation shall be thoroughly swept and cleaned and altered and fine particles removed from the joints of blocks to such a depth as may be directed by the engineer."

*Q.* Did you criticize that section?

*A.* I did.

*Q.* How?

*A.* The following bears directly upon that, and I will read it from my critique, page 47. My critique reads as follows, in reference to Section 55 and others combined with it, but especially 55:

"Note.—These specifications have no special subdivision which should be inserted with the title, FOUNDATION FOR ASPHALT PAVEMENT. Under such a title provisions for the use of other than concrete foundations for asphalt pavement where necessary or ordered should be set forth. These specifications practically provide only for concrete foundation under asphalt pavement and on special contracts have had to be changed by pen insertions."

*Q.* What has that to do with binder course?

*A.* Nothing. Section 55 has to do with a good deal besides binder course. It is the entire combination of materials above the foundation. Shall I read on?

*Q.* Yes.

*A.* I quote now from my critique:

"I advise the preparation of specifications for foundations, first, for concrete foundations as provided by these specifications with the modifications suggested; second, for the use of old stone block pavements for foundations under one of the three following condition: (a) Where the present old stone block pavement has no concrete foundation and has a surface too high to permit its use without lowering for a foundation. (b) Where the present old block pavement has a concrete foundation and the upper surface of the block is too high to be used without lowering. (c) Where the existing block or other pavement is at a height permitting its use for a foundation

of asphalt pavement without taking up and relaying the blocks.

“Detailed specifications covering each of these cases could easily be prepared and inserted in the specifications as they should be under the general title above suggested.”

*Q.* Mr. Howard, does not what you just read deal with the laying of the foundation?

*A.* That deals with the laying of the foundation with respect to making room for binder and surface, and therefore bears on 55, and nothing of the kind is in the old.

*Q.* Yes, but Section 55 deals with the preparation of the foundation after it is laid for the reception of the binder, doesn't it?

*A.* Binder and surface.

*Q.* Yes. Well, that is what I want to get the criticism on.

*A.* But if you do not leave room for it you cannot have it there. The old specifications did not leave any room for it, therefore they did not lay the pavements according to specifications, but as they thought they ought to be after they awarded the contracts, as far as I can judge and from what I have sometimes noticed. I continue to quote, this is another note:

“Note.—The specifications have no special subdivision which should be inserted with the title, Binder or Bituminous Concrete Layer.”

This is a direct criticism, for ahead of this section 55 we see in the old only the words “Asphalt Pavement,” no binder mentioned. I advised this title should become “Binder or Bituminous Concrete Layer.” Later on, in its proper place, we have the asphalt paving heading. I continue to quote:

“Under this title provision should be made or paragraphs inserted describing fully what is required for binder, keeping this portion of the specifications previous-

to and distinct from the requirements in regard to the asphalt pavement surface layer.”

Now I am referring to binder.

*Q.* I will have to ask you to answer my questions specifically or we will never get through. Will you look at section 55. Section 55 reads: “The pavement proper shall consist of a binder course one inch in thickness and a wearing surface two inches thick and equal to the pavement mixture hereinafter described.” Did you comment upon that specific specification?

*A.* I did in the next line. I being an engineer and you a lawyer, it is hard to get together, and experts are always a bore. I am sorry, lawyers never.

*Q.* I want to get down to the specific section.

*A.* Will the stenographer read where I left off quoting?

(Stenographer read as requested.)

*A.* I quote on as follows: “The first paragraph in regard to binder could read as follows:

“Binder or bituminous concrete layer as hereinafter described, shall be used in all cases over old stone block or other pavement used or prepared for a foundation, as herein described, and where required for the asphalt pavement surface layer; and binder shall be used over cement concrete foundation where the asphalt pavement surface layer is to be of the asphaltic cement class; but where asphalt rock pavement is to be used on a hydraulic cement concrete foundation, it shall be so used by being laid directly on the concrete without binder.” These were very serious omissions in the other specifications.

“This is the practice in all European and several American cities. It is the best practice. The above note applies to portions of paragraphs 55-6-7-8, and would require a re-writing and rearrangement of these paragraphs. Apart from this needed rearrangement I will comment on the

present requirements and needed changes in these and the following paragraphs."

In reference to page 10, paragraph 55, first line of said paragraph, I now read from my critic: "The words one inch in thickness should read 'at no point less than one inch in thickness.'"

"Paragraph 55, next to last line, insert after the words 'joints of blocks' the following words, 'to a depth of at least one inch and.'"

I therefore drop section 55 and go on to 56, for in the following ones there is an attempt to give engineering specifications.

*Q.* Go right on, Mr. Howard.

*A.* In some respects they are excellent, others bad. The most serious things are the omissions. I will go on reading from the critique: "Page 41, paragraph 56: These requirements do not make"—I think I better read the old one first.

*Q.* Yes, please.

*A.* So you will know what I am reading about, as you perhaps have never read these. Section 56 of the 1904 specifications, in print, read as follows: "The binder shall be composed of suitable, clean, broken stone, passing a one and a quarter inch screen, not more than ten per cent. of which shall pass a No. 10 screen."

I will try to pick out parts of these criticisms to make it briefer. I think this criticism of 56 is really a rearrangement of it, and I will not read it. It is very long.

*Q.* What were the points which you criticised in that, did you criticise anything as to the sizing of the stone?

*A.* Yes, my purpose was to get a stone so graded in different sizes that when mixed on the street it would be dense and durable. That appears later in the specifications, but not at this point, because that must be described where the mixture is dictated.

Paragraph 57, old specifications, reads as follows: "The stone shall be heated in suitable appliances, not higher than 325 degrees Fahrenheit, and then thoroughly mixed by machinery with asphaltic-cement equivalent in composition to that hereinafter set forth, at 300 degrees to 325 degrees Fahrenheit, in such proportion as shall be acceptable to the engineer."

My critique reads as follows: "Paragraphs 57 and 58," which must be taken together: "More complete definite requirements are needed, to insure the city getting good binder, which heretofore has been one of the weak points of the New York pavement and which is so important to the life and economic maintenance of the asphalt pavement surface layer. The following six paragraphs should replace paragraphs 57 and 58.

The bituminous concrete layer or binder mixture shall be composed as follows:

Clean, broken stone or equivalent described below by weight, ninety-five to ninety per cent.

Asphaltic cement hereafter described five to ten per cent."

The rest of the page of this long—to you long—criticism and suggestion is to the effect that 57 and 58 were too brief, indeterminate and did not describe hardly anything, and what I put here is the substitute and shows that there shall be definite mixtures within definite limits and how they should be put together.

*Q.* Will you tell us what you put there as a substitute in the matter of the sizing of the broken stone?

*A.* I offered for a substitute for the broken stone as follows: "The broken or equivalent stone must be free from dust, vegetable, animal or other objectionable matter, and it shall be able to pass through a standard one and one-quarter square inch mesh sieve and not to exceed twenty per cent. shall pass a standard sieve with one hun-

dred square meshes to the square inch; and the broken stone can contain not to exceed twenty-five per cent. of hard pebbles and clean, coarse sand, provided the aggregate used meets the other requirements of this paragraph."

*Q.* Did you criticise in any way paragraph 59?

*A.* Yes.

*Q.* How did you criticise it, Mr. Howard? First, what is it, and then how did you criticise it?

*A.* Old paragraph 59 reads as follows: "The pavement mixture for the wearing surface shall be composed of:

(a) Asphaltic cement, (refined asphalt, heavy petroleum oil or liquid asphalt).

(b) Clean, sharp sand.

(c) Finely powdered inorganic dust."

That is all that there was there before. On page 49 of my critic there are two paragraphs which cover that. Shall I read them?

*Q.* Yes, please.

*A.* Here the heading "Asphaltic cement" is inserted, because we are about to talk of asphalt pavement mixture. "Note: It is best to arrange the paragraphs on the asphalt pavement in a different order and change several of the requirements to ones in accord with later and best practice. Additional physical and chemical tests should be inserted to enable a better present and future interpretation of what is acceptable or was acceptable to the City. Under the present specifications it will be difficult for a future administration to determine exactly what was required. Moreover, because the responsibility is on the President of the Borough the engineer and inspectors, and because they cannot be constantly everywhere to instruct as to details, the detailed requirements should be more fully set forth in the specifications.

Below I make suggestions as to the principal defects in the paragraphs stated, but this entire portion of the specifications as well as several others need rewriting.

"Paragraph 59," which I have just quoted a few minutes ago, I am now quoting from the critique. "This does not state that it is an asphalt pavement mixture, nor does it provide, as it should here, for asphalt rock pavement, although that is mentioned near the end of the specifications. The proportions to be used in the mixtures are not even approximately given here. As it is not proper to state what is wrong without offering a substitute of what is believed to be right, I suggest the following two paragraphs in place of paragraph 59:

"The asphalt pavement surface layer laid under the contract shall be one of the following two kinds or classes:

- (a) Either as per Item A, an asphalt pavement surface layer of the asphaltic cement class hereafter described.
- (b) Or as per Item B, asphalt pavement surface layer of the asphalt rock class hereafter described.

The contractor will lay the one of the above-mentioned two classes of surface layers upon which one he submitted his bid and had the bid accepted by the President, and for which the contract for the work calls."

That is the criticism as far as it applies to 59. I call your attention to 59, that it is not an engineering description of anything.

*Q.* Mr. Howard, after going through the specifications, did you make detailed criticisms such as those you have read of all the clauses or practically all the clauses?

*A.* Yes, and where the old ones put in some technical requirements, I showed some of them were very wrong and should be substituted by others which appear here.

*Q.* Do all those criticisms and suggestions which you made of the specifications appear in that exhibit which is in your hand?

A. Yes. This is the first time I opened this since I delivered it to the City. I have a duplicate of it, which I have not even seen since. The document has everything in it.

Q. Have you ever personally inspected or become familiar with wood block pavements?

A. Yes.

Q. When, and in what cities?

A. My first knowledge of them was before I took up my profession, 1873, 1874 and 1875, in Washington, the Nicholson block, which became a failure. My next experience, when of age, and working at my profession, of examining and being connected with wood block pavements, studying them, was at intervals since the following dates and in the following cities: Since 1883 or 1884, in Paris, Berlin, Geneva, London, and one or two other cities in Europe. Since about 1887 in Chicago and various other Western cities, New York, for we then had some other wood pavement on several streets here in New York, in Boston, Baltimore, Chicago, St. Louis, Indianapolis, and others at intervals every year.

Q. Can you name any wood block system with which you are familiar?

A. A lot of bad ones; I will name those I consider fair or good, or some of the fair or good ones, they are very numerous. The Kerr, as later modified and now known as the Paris (France) Municipal System, for that city does all its own work, making its own blocks. The Combination Asphalt Wood Block System used in London. The Karri Wood Block. The Jarrah. I am speaking from memory, I have no notes with me on that. The Creotone Blocks specifically as laid on Michigan Boulevard, Chicago, in front of the Auditorium Hotel, but not Creotone in general. The Creo Resinate as laid on Tremont Street, Boston, and at a few other points.

Q. What system of wooden blocks is in use in this City?

A. I know what the specifications call for, but I have



not examined the blocks themselves. I have some doubts if they are the same as the specifications call for, but they in my judgment are intended to be the Creco-Resinate wood blocks and in some cases certainly are. Do you want any more systems?

*Q.* No.

*A.* There are a lot that are not known, simply general systems used without names.

*Q.* I show you Exhibit No. 112, specifications for wood block paving used in this Borough as testified to, and ask you if you are familiar with that form of specifications?

*A.* I have here a form that I have taken from my files, for I have specifications from all cities among my files; comparing that, in a minute I can tell whether this is the one, otherwise I have to read this long document, and it will take an hour.

(Witness refers to papers.)

*Q.* (Question repeated.)

*A.* I am familiar with it.

*Q.* Will you look through those specifications and tell us whether you find anything there to criticise, Mr. Howard, and if so what?

*A.* I will name two or three things.

*Q.* Yes, if you please.

*A.* And more, if you wish. On page 9 of these wood block specifications, section marked (B) are the words, "And maintain said pavement in good condition to the satisfaction of the President for a period of ten years, etc."

*Q.* Well, what have you to criticise there?

*A.* How shall each succeeding President know what is required? That was what I asked myself. There should be some measure of quality put in here. It is impossible to keep wood block pavements as smooth as a marble table, and it is very bad if there is an inch hole in them. There should be some measure of deficiency put in here.

*Q.* Have you anything else to criticise?

A. Skipping to page 17, the section marked "EE," these sections should have been enumerated consecutively and not fixed up this way. In this section "EE," page 17, I read: "Just previous to the expiration of the guarantee period the entire work shall be inspected, and any defect or failure of the pavement shall be immediately repaired, etc." That means shall be inspected by the City officials, and the danger of that, as I have learned in other cities, is if they fail to do it, it gives the contractor a loophole to get out, and you get your pavement delivered in bad shape at the end. An honest engineer might do it, but there are dishonest engineers, too, and they might not do it. That is not a safe provision. That would be entirely done away with if they had definite specifications.

Q. Do you find anything else to criticise?

A. The section reads on "replacing in the same manner as when originally laid." There is an impossibility. The general surface wears down, and you should have several heights of blocks to cement in, as at London, Paris and elsewhere, allowing the pavement to go down, say, an inch, then having in the wagon different sized blocks replacing them from time to time as needed, according to the depth of repairs. You could not put in new blocks up to the original height when the old is worn down.

Q. Do you find anything else to criticise?

A. Take page 27. Here is a requirement they all have, concrete by the cubic yard. Absolutely wrong and unnecessary and out of common practice. It is perfectly well known how deep the concrete foundation shall be and that everything shall be cut away down to that level. If there is anything soft below it is taken out and filled up to that level. This should be per square yard of concrete of a definite thickness named, because afterwards they can estimate all kinds of bills against The City and you cannot cut your pavement up to find out whether it is there or not; if a false return is made you cannot prove it; if you attempt to prove it, it will cost The City hundreds of thousands of dollars to prove it by lifting your pavement.

Pavements should be put down to stay, and not later to find out the thickness, as lately in Philadelphia six hundred holes more or less cut.

Q. Can you find anything else to criticise?

A. Page 30, Section 15, reading: "The old paving blocks and other materials necessary to be removed shall be taken up and disposed of as required and the roadways excavated of all sub-soil or other matter, be it earth, rock, or other material, to a uniform sub-grade eight inches below the top of the finished pavement," stopping there, you see why they could have had that bid called for per square yard, eight inches thick, right on their own specifications. Later on the engineer is allowed, as you will find if you read these, to increase that depth wherever he likes, or the Borough President may, I do not know which without reading it. I go on quoting—no, previous to quoting, I will say that is not enough, eight inches, to make sound pavements for a first-class city of this kind, if you want it as good as Paris, London, Berlin and the Chicago pavement I have mentioned, and perhaps the Boston one. You should grade twelve inches, that would provide for a wood block six inches deep, a half-inch of mortar, and the balance, five and one-half inches of concrete, making twelve inches. In Berlin, Germany, they use eight or nine. Therefore, this is wrong as to amount of grading for good solid pavements, it does not give enough room to give a solid pavement in. I go on quoting from Section 15: "Or to such other depth as the engineer may require." I have commented on that already. It is not a wise provision to have there, because a thing that can be defined by the engineer after the contract can be defined by him before the contract, and is always done in all construction, buildings, bridges and pavements, where they are perfectly efficient as engineers, and experienced, and there are plenty of them.

Section 18. This says it shall be graded to required depth, and I wanted inserted here the definite depth again.

Now going on to the requirement as to the wood blocks themselves, on page 34, section 39 has nine subdivisions in it, each subdivision is numbered 1, 2, 3, 4, 5, 6, 7, 8, and 9. It is the only general section so subdivided and sub-numbered. I read from section 39, subdivision 3: "The paving blocks cut from the lumber above specified shall be well manufactured, truly rectangular and of uniform dimensions. Their depth (parallel to fibre) shall be three and one-half inches." I know of no city of the size of New York or half its size in Europe and none in the United States, except those that are using Creco-Resinate blocks, or blocks so purported to be, which employ a block only three and one-half inches deep.

Paris for thirty years to my personal knowledge and inspection has always used six-inch blocks. These thin blocks split in long continued dry weather vertically, and you are laying here the foundation for future troubles of New York, in comparison with which the present holes are a mere bagatelle, by using these thin blocks. I mean shallow blocks. "Their length should not be less than six nor more than ten inches." The best practice in my judgment, and from my observation, is to never use a block as small as six, always above eight inches, but as our American wood is so good, it is wise to try this, but in this respect this specification is an experiment.

*Q.* What other comments have you?

*A.* The specifications now read, "Shall not be less than three nor more than four inches," referring to the width of the blocks. It is poor policy for a city to have two widths of blocks, on account of future repairs. All blocks in wood block pavements in one city should always have the same width, standardized as to width. The length is not so very important, but the depth must be standardized when they are new, and then the repair blocks could be of said depths, as per convention of the city. It is positively bad. Although later on it says in any one contract all the

blocks used are to be of the same width. I am speaking of future repairs, for the sake of the contractor, and the city also.

*Q.* Have you any comments to make upon the provision referring to joints?

*A.* There are two kinds of joints in wood block pavements, the general joints the people call joints as they walk over it, being the spaces between the blocks when first laid. Then there is what we call expansion joint, because wood expands when wet and contracts very much when dry. Which do you want me to speak of, general joints or expansion joints?

*Q.* Which joints are provided for in those specifications?

*A.* The specifications have nothing definite, clear or defined as to how many expansion joints there shall be, where they shall be and how constructed. There should be an expansion joint along every curb of every street of any considerable width, as in all over the world, and here they are positively laid without expansion joints in many cases as I have seen them.

*Q.* What do you criticise in that?

*A.* The specifications do not provide for proper expansion joints. The lack of those proper expansion joints will force the blocks against the street-car slots and will prevent The City from collecting a good deal from the street railway as counter-claims——

*Q.* How do you know that would take place?

*A.* I have seen it.

*Q.* Where?

*A.* On Greenwich street, where I have seen wooden blocks being taken out in order that the slot could be forced apart by iron wedges. This forcing apart was necessary in order to have the plow, as it is called, or arm that reaches down below to get the power, in order to have this plow pass freely, for it was binding it seriously.

*Q.* What was that binding due to?

A. The expansion of the wooden blocks forcing themselves against the rails on the outside, those rails being held in position by cast-iron yokes underground, there is nothing to give in that case except the slot, which being an open slot, there is nothing to hold it apart, it is therefore squeezed together to the detriment of the railway and travel.

Q. You say those specifications provide in no way against that?

A. They do not, in my judgment, nor are the pavements laid so as to provide against it.

Q. Mr. Howard, will you tell us whether or not, in your opinion, the specifications in Exhibit No. 112 limit the wood blocks to be used in this city to any particular type of block?

A. Yes, not sharply a particular type, but within certain bounds, such as to make it particular in the sense that other blocks not within those bounds cannot be used.

Q. Before taking up this question, I want to ask you some questions concerning wood block pavement which you have inspected here.

A. In what city?

Q. Here in New York, in the Borough of Manhattan. Is there any street in this borough paved with wood block that you have examined?

A. A good many, Broadway, and a dozen others known to everybody around the city, near my office, and up to Warren street, then eastward from Warren street, Cortlandt street—

Q. Have you ever taken any samples?

A. Yes.

Q. For what purpose did you take a sample?

A. I took those samples after a conversation with Mr. Olney, in which I understood him to tell me to watch the wood block pavements at intervals, to be able to tell him what I thought of them, and I therefore had to take samples so as to observe them.

*Q.* What conclusions did you come to from the samples you took?

*A.* I took some of those samples afterwards on my own account for studying the pavement, for my own knowledge.

*Q.* Tell us from what point you took the samples.

*A.* From the point of average traffic on a street between the curbs, or the centre line of the street, on Chambers street.

*Q.* What did you find in the case of those samples you took?

*A.* The first I took was about a week after the pavement was laid, so that the sample should come out of the pavement, not from the sidewalk in the pile; that was very little worn, and good shaped, new block. Some months later I got one from the same general location, within a few feet of there, which showed wear and brushing, and some months later another. I also took one of the new blocks they were using for repairs, because they were putting in very shallow three and a half inch block, where the originals had been four, the whole pavement at that time wearing down about a half inch. They were doing precisely what I thought should be in the specifications.

*Q.* You said Chambers street. Did you mean Warren street?

*A.* I beg your pardon, Warren street, between Broadway and Church, I think it is Church, the next street west.

*Q.* Did you take a record of those samples?

*A.* I keep samples of the pavements themselves always in my museum of pavement samples of all kinds.

*Q.* Can you give us any record of those samples which you took?

*A.* I photographed those samples, if that is what you mean by record. I could go and get the samples, if you need them.

*Q.* I am speaking of notes.

A. I took full notes at the time and filed them in my files.

Q. Can you give us the result of that examination of those samples?

A. The pavement was wearing quite seriously, was not being repaired promptly enough. In wood pavements it is a question of constant attention and prompt repairs.

Q. When you say it was wearing seriously, what do you mean?

A. The blocks were being crushed down, in plain language, and were losing their proper shape and being split from top to bottom pretty seriously in some places in dry weather.

Q. What does that indicate as to the nature of the block?

A. That they were splitting; but it does not mean the wood in the block was bad wood, for the wood in those blocks was splendid wood, before its treatment, and they were quite thoroughly creosoted or treated.

Q. What was the depth of those blocks when you examined them?

A. Four inches when new; three and one-half inches when I took my sample, general average depth.

Q. Can you tell us how much they had worn?

A. About a half inch, under average wear over in the middle; in the gutters none.

Q. Can you state whether that is usual wear for a wood block for the time elapsed?

A. It may be for that system, but not for the best systems, surely not. You have records of standard wear, you can get them by writing to any large cities; that has been recorded and they are official documents.

Q. Have you the photographs that you say you took of those samples?

A. Yes.

Q. Have you them with you?

A. Yes, there are two (producing photographs).



*Q.* Are those the photographs?

*A.* Yes.

*Q.* Will you indicate which photographs belong to each specimen?

*A.* The first one is marked Photo No. 1, and consists of four blocks placed side by side and photographed, therefore, four specimens.

*Q.* Will you tell us what those four specimens were?

*A.* Creosoted wood blocks, Warren street, New York City, taken out between Broadway and Church street. Sample A shows a height of four inches, and the fibre of the new block, taken from the pavement about one week after it was laid in the fall of 1903, and shows no wear. It is an end view of a block.

Sample B shows the fibre crosswise; the block, surface crushed or worn, and the height of the block reduced to three and three-quarter inches when taken out of the pavement on June 28, 1904, about three-quarters of a year after being laid.

I want to say here it was easy to get these samples; they were opening the pavements for pipes and other things, and I could easily take them without infringing upon any rights, and I was also asked to do it by the City, and would not have been stopped on that account.

Sample C shows a block taken from the pavement November 4, 1905, and shows a block crushed and worn to a height of three and one-half inches after about two years' wear.

Sample D shows a new block made three and one-half inches deep, which was one of a lot used to make repairs on November 4, 1905, where the worn blocks such as Sample C were being removed singly or in groups. It was necessary to thus use new blocks only three and one-half inches deep, because the general level of the pavement had been worn down to that depth or height, whatever viewpoint you look at it, from below or above. I have signed these photographs on the back for identification, and ask that they come back to my files.

The photograph was admitted in evidence and marked "Exhibit No. 113, April 26, 1907, C. B."

The WITNESS They were not taken for this case; they were taken for my own general records of pavements.

Q. When were they taken?

A. I took them in my laboratory, and the table you see is one of the laboratory tables.

Q. When were they taken?

A. The exact date I cannot state from memory, but it was soon after I had found they were using three and one-half inch high blocks to repair, as they should do, and that was soon after November, 1905. I know it was in the winter of 1905-6.

Q. Can you tell us in what condition a wood block three and one-half inches in depth when noted by you would probably be in at the expiration of a ten years' guarantee?

A. As on Warren street?

Q. Yes.

A. Not one of those blocks is possible to be there at the end of ten years from the date it was laid, nor do wood paving contractors, in my judgment, expect the original blocks shall be there at the end of ten years. The maintenance of the pavement is as much a function of it as the original laying.

Q. Will you state again the depth of block which you consider necessary to make a good pavement for a street such as Warren street?

A. Six-inch block on a six-inch concrete foundation, but laid a little differently than they laid them there as to manner of laying.

Q. Did you take a photograph of the other exhibits at that time?

A. I had one other photograph connected with the samples that I took from Warren street, but that was a photograph of the block I had marked C; is an enlarges

ment of one of the blocks in the other photograph to show it in detail.

*Q.* Is that the photograph you have in your hand?

*A.* Yes.

*Q.* What do you say that photograph shows?

*A.* Creosoted wood block from Warren street, marked C, which letter is also on the other photograph, this being an enlarged photograph of a sample taken out between Broadway and Church street on November 4, 1905, after about two years' use, showing crushing and wearing of block in two years to be three and one-half inches. This pavement is under favorable conditions of being kept fairly clean, has a slight grade for draining off water and is subject to medium city traffic. The block is apparently best Georgia pine, thoroughly creosoted.

*Q.* Can you state when, approximately, you took this photograph?

*A.* In the winter. I photographed those samples in the winter of 1905-6, in my laboratory.

*Q.* Now, Mr. Howard, I ask you again whether, in your opinion, the present specifications limit the city to the use of any particular kind of wood blocks?

*A.* Yes, I think they do.

*Q.* In what clause, and how?

*A.* Section, or clause, as you call it, 39, and in subdivisions or parts of its subdivisions, subdivisions No. 3, No. 4, No. 5.

*Q.* In what respect do you think those subdivisions restrict the use——

*A.* Wait until I read the others, will you, please? I have not gone through them yet. Those are the subdivisions which I think limit the use of this block to one specific kind or description. There may be some other points. I have read it through quickly.

*Q.* What I meant, Mr. Howard, was for you to tell us how you think those words limit the City to the use of any particular kind of wood block.

A. By naming a process which I believe is either patented or proprietary, not wholly, but in certain requirements, is such that in order to comply with these specifications and requirements specifically in several respects the contractor or contractors would necessarily have to use either a patented or a proprietary or a secret process, or parts of those processes would be an encroachment upon them.

Q. Have you in mind any particular patent which you consider covers or to which you consider these specifications are limited?

A. I have two patents in mind.

Q. What are they?

A. Patent of 1889, No. 404,303, issued in 1889 to parties whom I do not remember. That patent I have not studied in connection with these pavement specifications.

Q. What is the other patent?

A. The other was the one issued—either issued to or assigned to some one by the name of Bevier. I have made notes on that, and I can give you the exact date if you wish—issued in 1901.

Q. Did you procure from Washington at my request a copy of that patent?

A. I did.

Q. Have you that copy with you?

A. I have.

Q. May I see it?

A. That is the patent (producing paper).

Q. Was this procured by you from the Patent Office at Washington?

A. No, sir. I have my patent attorneys, and I wrote to them and they procured it. I have that and the letter they wrote me and other letters. I cannot do everything.

Q. Was it a letter of transmission to you?

A. It was. That is a regular United States patent, as any one can see, printed from regular forms. You can

get one with a seal on it and a blue ribbon for a dollar. Write and get it yourself.

*Q.* Have you the letter of transmittal of your attorneys with you?

*A.* I have not. I think I have a copy, or can get it from my office. I may have it among my papers, if you will permit me to search.

*Q.* If you will, please.

*A.* That letter will be found, if you wish to telephone to my office, in the regular files.

*Q.* At all events, this is the copy of the patent forwarded to you by your patent attorneys at Washington?

*A.* Yes, sir, my stamp is on it, date received.

*Q.* Were you informed in that letter where they had procured the copy?

*A.* I had wired them and written them to go to the Patent Office and get it there, my attorneys. They could not have got it elsewhere.

*Q.* This was sent in answer to your request?

*A.* This was sent in answer to my request. I wrote three o'clock Sunday morning. They wired the response that they had gotten it and that it was coming by mail.

The paper was admitted in evidence and marked "Exhibit No. 115, April 26, 1907, C. B."

Commissioner MITCHEL—The stenographer may note that there is a pencil memorandum upon the outside of this Exhibit 115, "Received April 23d, 1907, J. W. H."

*Q.* Mr. Howard, will you examine Exhibit No. 115 and indicate to us what clauses of that patent cover the restriction in the specifications?

*A.* You mean what requirements in the specifications coincide with the patent?

*Q.* Yes.

*A.* Turning to the claims of the patent, which are the things printed by the Government, not the preamble and

description previous, and specifically to Claim No. 1, on page 2 of the patent, the patent reprint by the Government, from which I am reading, I think that the requirements of these specifications for wood block pavements of the Borough of Manhattan in the exhibit you have handed me are so similar to the requirements of that claim under the patent—it is a question for the law to decide, not the engineers, whether there is an infringement or not. I can compare them from the engineering standpoint only, and say wherein they are similar and require the same thing, from a technical standpoint.

*Q.* Please do so.

*A.* In my judgment, for I may err—I want to say I have no objection to the City buying patented pavements. They have a provision that it must not, although they buy thousands of other things, fire engines and everything. That provision is vicious. It may be able to produce a dangerous monopoly if it is kept secret. I do not say it is, nor intimate it. I am speaking only as an engineer, Mr. Commissioner. Claim 1 of the patent reads: "The herein described method for the treatment of wood, which consists in subjecting the wood to the action of a mixture of creosote-oil and resin." As to that point, I will read from the specifications, Section 39, subdivision 4: "The blocks are to be treated throughout with an antiseptic and waterproof mixture, 75 per cent. of which shall be creosote or heavy oil of coal tar conforming to the specifications hereinafter set forth, and 25 per cent. of which shall be resin." From the rapid study I have now made, I doubt if Claim 2 of the patent and Claim 3 of the patent are identical with the requirements in the specifications. The infringement, if there be any, would be upon that first claim, as far as I have read. This is a matter that should be taken up under some special investigation that I cannot go into here, it is too long. I have been on patent cases as an engineer, and they are usually very long. Claim 4 of the patent, on page 3, reads: "The process of treating wood which

consists in first subjecting it within a suitable vessel to a dry heat of about 212 degrees Fahrenheit, then increasing the temperature," etc. The specifications, Section 39, subdivision 5, reads: "In preparing the blocks to receive the creosote mixture they shall be placed in an airtight cylinder, in which dry heat"—the patent said dry heat, the specifications say dry heat—"in which dry heat, or heat produced by superheated steam, is maintained and raised to a temperature of 250 degrees Fahrenheit." The patent says about 212 degrees. Now, in handling large blocks you could not measure 2 degrees, and the "about" covers the 215. The patent, on page 1, line 20, goes on to read as follows: "The method consists, first, in subjecting the wood to a heat of 212 degrees Fahrenheit and upward without pressure"—I will omit until I get to the point I want—"after subjection to this treatment for from one to five hours." The specifications say that it should be 250 degrees for one hour. It lies within the limits of the patent. The following is from the patent, line 27: "The temperature is raised from 250 degrees to 500 degrees Fahrenheit." The specifications require as follows: "The heat is then to be increased until it has reached 285 degrees Fahrenheit," etc., perfectly within those limits. It is a profound study to know how far it infringes upon this patent. In my judgment, it infringes upon at least one claim. The matter is one that I will not go into further here, unless you wish it. As to the other patent, I know its general requirements, but I haven't the patent here; but I think it infringes upon the mixture of creosote oil and resin, which is the other patent, as far as I remember.

*Q.* If that is not here we cannot go into that to-day. Did you procure from the Patent Office at Washington a transcript of the record in the matter of the title to this patent?

*A.* As to title, I did; as to record, no. That is an entirely different document; that is the history of how it was gotten out. The title is like a real estate title, to

show who owned it and who it was transferred to. I got a certified copy of the original records as to who owned that patent from time to time and who owns it to-day.

*Q.* (Handing paper) Is this the certified copy which you procured?

*A.* That is the one I procured through the same attorneys. It arrived this morning..

The paper was admitted in evidence and marked Exhibit No. 116, April 26, 1907, C. B.

THE WITNESS—Mr. Commissioner, can I say something that I think it is just to say?

Commissioner MITCHEL—Certainly.

THE WITNESS—I do not now know personally whether or not the wood pavements of this city are laid according to these specifications or not, nor do I know whether or not the many contractors laying wood pavements in this city have any suspicion that they have been encroaching upon any patent or patents, neither by hearsay nor personal knowledge. It is far from my intention to implicate anybody in any trouble, but I must tell the facts as asked and found by me, and am trying to do so to the best of my judgment.

Commissioner MITCHEL—I read from page 2 of Exhibit 116:

Andries Bevier.

Instrument dated Oct. 31, '99. Recorded Nov. 1, '99. Liber B 60, p. 281.

Parties.

Andries Bevier

to

Sarah F. Bevier,  
(Borough of Manhattan.)  
New York, N. Y.

Invention.

Methods of Preserving Wood.

About to make appln.

Specn. exetd. Oct. 31, 1899.

Pat. 681,032, Aug. 20, 1901.

Said invention, and all his right, title and interest therein.  
Letters patent to issue in accordance herewith.

Consideration, \$1.



Instrument dated — 19, 1901. Recorded July 18, 1901. Liber L 63, p. 252.

(Acknowledged June 19, 1901.)

Parties.	Invention.
Sarah Frances Bevier	Methods of Preserving Wood.
to	Filed Nov. 1, 1899.
United States Wood	Ser. No. 735,492.
Preserving Company,	Allowed May 10, 1901.
New York, N. Y.	Pat. 681,032. Aug. 20, 1901.

Said invention and all right, title and interest therein, for the United States, and in the letters patent therefor.  
Consideration, \$1.

Instrument dated June 20, 1901. Recorded July 18, 1901. Liber L 63, p. 252.

(Acknowledged June 21, 1901.)

Parties.	Invention.
United States Wood	Same.
Preserving Company,	
to	
Eversley Childs,	
Layville, N. Y.	

Said invention, and all right, title and interest therein, for the United States, and in the letter patent therefor.  
Consideration, \$1.

Instrument dated July 17, 1902. Recorded Aug. 8, 1902, Liber Y 65, p. 33.

Parties.	Invention.
Eversley Childs	Methods of Preserving Wood.
to	Aug. 20, 1901. 681,032.
United States Wood	
Preserving Company,	
New York, N. Y.	
Corporation of New Jersey.	

Assigns all right, title and interest in said invention for the United States, and in said letter patent. Also all debts, dues, demands, claims or actions to which he is entitled for damages or profits accrued or to accrue from infringement; and authority to demand, sue for, and collect same.

Consideration, \$1.

Andries Bevier

Instrument dated Aug. 6, 1902. Recorded Aug. 8, 1902. Liber 65, p. 34.

Parties.	Invention.
United States Wood	Methods of Preserving Wood.
Preserving Company,	Aug. 20, 1901. 681,132.
to	

Manufacturers' Trust Company,  
New York, N. Y.  
Corporation of New York.

Assigns all right, title and interest in said invention, for the United States, and in said letters patent; to be held and enjoyed subject to mortgage or deed of trust, dated July 9, 1902, executed by the parties hereto. Also assigns all debts, dues, demands, claims or action to which it is entitled for damages or profits accrued or to accrue from infringement; and authority to demand, sue for, and collect same.

Consideration, \$1.

The Commission directs the stenographer to note that the subpoena served upon the first witness called this morning called for the production here of the mortgage or deed of trust, dated July 9, 1902, referred to in Exhibit 116, just read.

*Q.* Mr. Howard, have you, in the course of your experience, become familiar with the systems of administration on matters of pavements in various cities?

*A.* Yes, I have made a study of it in reference to streets and pavements, anything affecting streets.

*Q.* Are you familiar, generally speaking, with the system employed in this borough?

*A.* I was at intervals as I have served it. I am not familiar with just what it is doing now, or has been the last year or two. Up to about 1905 I am as to pavements in general.

*Q.* Speaking briefly and generally, will you state what, if anything, you find to criticise in that system?

*A.* As to pavements or street cleaning, or what?

*Q.* As to pavements in this borough, the general system of administration in the borough which has jurisdiction of them.

*A.* I will say my general impression is, general inefficiency as to operations; as to organization, there is quite a little on paper, but it does not seem to centralize in one responsible, experienced and therefore efficient head to decide all such matters finally, but it is centered in the hands of men who largely, after they are in office, must begin to learn the primary things about pavements, and the engineers are not left in full charge, only intrusted with details. That is what I have found in this borough.

*Q.* Do you consider the centralization of authority in this matter in some one competent head is or is not an essential to the procuring of good and durable pavements?

*A.* The word competent covers it perfectly, as with Herr Gottheimer in Berlin, chief engineer of highways, and of everything connected with it under him; Mr. Al-

lard, in Paris, and the United States Army Commissioner in Washington. I so regard it that it should be concentrated in the hands of one efficient man. Efficient covers education, experience and everything, and above them should be other officials, but they should not interfere with the technical details. I also find they make no study of other cities of what they are doing, and do not use the knowledge of what other cities are doing, as far as I can see.

At this point a recess was taken until 1.30 P. M.

#### AFTERNOON SESSION.

SAMUEL WHINERY, called as a witness, being duly sworn, testified as follows:

*By Commissioner MITCHEL:*

*Q.* Mr. Whinery, what is your business?

*A.* I am a civil engineer, sir.

*Q.* At what address, please?

*A.* 95 Liberty street, in this city.

*Q.* How long have you been a civil engineer, Mr. Whinery?

*A.* Oh, something like forty years.

*Q.* Were you at one time employed by the president of this borough?

*A.* I was.

*Q.* In what capacity?

*A.* As consulting engineer on pavements.

*Q.* At what time were you so employed?

*A.* From February 1, 1905, to December 31, 1905.

*Q.* What were your duties as consulting engineer, Mr. Whinery?

*A.* I understood them to be to advise the President as to methods of constructing pavements, to confer with him to a certain extent, to observe the way the work was carried on, and to report to him.

*Q.* Did you consult with him on those questions at various times?

*A.* I did.

*Q.* Did you make reports to him on those questions?

*A.* I beg your pardon.

*Q.* I say, did you make written reports to him on those questions?

*A.* I made written reports and communications, written communications very frequently.

*Q.* On what general subjects were those?

*A.* Why, they were on almost every subject relating to constructing the pavements here in New York City, and the methods under which the work was done—at least on a great many subjects.

*Q.* Had the President of the Borough at the time of your retention by the borough communicated to you what duties he expected you to perform, Mr. Whinery?

*A.* Only in a general way. He said he wanted somebody—that the amount of pavement construction in the city was very large; that there were a good many troublesome questions arising with reference to them, and that he wanted some one to advise him in reference to the matter.

*Q.* Did you receive a formal appointment from the President of the Borough?

*A.* I did.

*Q.* In what form was that?

*A.* In a letter from the President.

*Q.* Can you remember the date of that letter?

*A.* No, I do not, and in gathering up my papers to come over here I could not find it, but I can find it if it is important.

*Q.* No, it is not. But can you state approximately when that was received by you?

*A.* Some time about the middle of January, I think, 1905.

*Q.* Of 1905; is that right?

*A.* Yes.

*Q.* Can you recollect, Mr. Whinery, what the first matter was which you took up for discussion with the Borough President?

*A.* I think it was the revision of the specifications in the city for paving.

*Q.* At what time did you take that up with him?

*A.* That was very early in my employment. I foresaw that that was the first important thing to do, and I brought it immediately to his attention, and we had quite a number of conferences over it.

*Q.* Now, will you tell us generally why you considered that the first necessary thing to do?

*A.* Well, of course, in letting contracts for paving the first important thing was to have those contracts and the specifications accompanying them in correct form; to have them require the work to be done in a proper manner. I was of opinion that the specifications then in use did not properly provide for the construction of various kinds of pavements, and therefore suggested that as a first measure in the work the specifications should be overhauled.

*Q.* Now, did you report that conclusion to the Borough President?

*A.* I did.

*Q.* When did you first report it?

*A.* Well, I do not remember. It was verbal, I think, but it was very early, perhaps within the first week of my employment; that is, the first week of February.

*Q.* Did you later confirm that in writing?

*A.* I think so, yes, sir.

Commissioner MITCHEL—The Commission directs the stenographer to here make a note in the minutes to the effect that by agreement between myself and the counsel for the President of the Borough the subpoena which had been prepared directing the President of the Borough to produce here a list of letters and documents received in connection

with the employment of this witness, was served upon the counsel for the Borough President upon his agreement to produce here to-day, if possible, those documents. The subpoena was returnable at 10:30 this morning, but the papers have not yet been produced.

*Q.* Have you a copy of the letter, Mr. Whinery, in which you confirmed the verbal report that you have just mentioned?

*A.* I have a letter in which I transmitted—the letter of transmittal of the new set of specifications which I prepared, I think.

*Q.* What kind of a copy is that which you have?

*A.* I beg pardon.

*Q.* What kind of a copy of the letter of transmittal is that?

*A.* Why, it is in my letter book.

*Q.* Will you give us the date of the letter and then read it?

*A.* The letter transmitting the new specifications was dated February 28, 1905.

*Q.* To whom was it addressed, Mr. Whinery?

*A.* It was addressed to Hon. John F. Ahearn, President of the Borough of Manhattan.

*Q.* Will you read the letter, please?

*A.* (Reading)—

“DEAR SIR—Complying with your instructions I have made a careful examination of the present standard specifications for street paving in the City of New York, and have submitted to you, through the chief engineer of the Bureau of Highways, a proposed revision of the same. The present specifications have, I understand, been in use for many years, though parts of them have occasionally been changed. In the meantime important advances have been made in the theory and practice of constructing pavements, and these specifications no longer represent, in some important respects, the best practice of the

present time. This more especially appears with regard to asphalt pavements, but it applies in a measure to pavements of other kinds. Furthermore, the present specifications seem to me to be so lacking in definiteness of statement and logical arrangement as to easily lead to misunderstandings between the city and the contractor.

In regard to asphalt pavements, these specifications are inadequate and indefinite, and clearly not in line with recent investigation and experience. Aside from their failure to define clearly and definitely the quality of the materials to be used, they are not up to date in the important matter of properly proportioning and preparing the pavement mixture, and they not only permit, but they distinctly require methods of preparing foundation and laying the asphalt surface which are now recognized by the best authorities and experts to be wrong and to result in inferior work. The best interests of the city undoubtedly require that these specifications shall be revised, and I regard the matter so important that I recommend that no more contracts be entered into under them.

Many of the changes that I consider important are entirely independent of the question of what particular varieties or qualities of asphalt should be admitted or excluded from use and are of such a character that they would doubtless be promptly accepted and approved by the officers of all the different boroughs. It being desirable that the specifications for pavement shall be, as far as practicable, uniform throughout the whole city, I respectfully recommend that measures be taken to bring about a revision of the present specifications, and their adoption as revised by all the boroughs. To this end I would suggest that the matter be referred to a committee composed of the Chief Engineer of the Board of Estimate and Apportionment and the engineers of the Bureaus of Highways of each borough, with instructions to confer and to report such changes as they may think advisable. I will gladly serve upon such a committee if you so de-

sire. In this way the necessary amendment of the specifications, in particulars about which I apprehend there will be no difference of opinion, can be accomplished, while the present requirements as to the kinds of asphalt that shall be admitted may be changed or allowed to remain as they are now, as may seem best in each borough. In this last particular the object should be, while excluding materials of known inferiority or of questionable quality, to encourage the widest and freest competition between asphalts whose quality is sufficiently well known, or ascertainable, to render their use safe and prudent. It is recognized that there may be differences of opinion upon this point, and each borough may prefer to establish its own standard, but this need not and should not prevent concurrence upon important requirements of general application, regardless of the kind of asphalt used. The changes which are deemed important would not materially increase the cost of the pavements, but they would secure such an improvement in their quality, durability and ultimate economy as to make any small increase in their cost of no practical consequence.

Respectfully submitted,

S. WHINERY,  
Consulting Engineer."

*Q.* Mr. Whinery, before reading that letter to the Borough President, you had submitted a new form of specifications, had you not?

*A.* They were submitted with this letter.

*Q.* With that letter?

*A.* Yes.

*Q.* They were submitted, however, to the chief engineer, were they not?

*A.* They were submitted through the chief engineer, yes.

*Q.* Did you write a letter of transmittal to the chief engineer when submitting them?



A. I am not quite certain whether I did or not—yes, I find I did.

Q. Have you a letter press copy of that letter of transmittal?

A. I have, but there is one page of it that is very dim. Perhaps I can make it out.

Q. Well, if you have any exact copy of that letter you may read it.

A. You hand me here an office copy which I have of letters other than the letter press copy.

Q. When you say an office copy, Mr. Whinery, do you mean a carbon copy made at the same time as the originals?

A. Yes. Shall I read that?

Q. Yes.

A. This letter is dated February 23, 1905, and is addressed to Mr. George Olney, chief engineer, Department of Public Works, Borough of Manhattan, Park Row Building, City. It reads as follows:

“DEAR SIR—Complying with the instructions of the President of the Borough and yourself, I have prepared, and submit herewith a revision of the specifications for paving in the Borough of Manhattan. The revision covers the general clauses of the specifications, and the detailed specifications for asphalt pavement, rock asphalt pavement, block asphalt pavement and granite block pavement, but not for other kinds of pavement, as I have not yet been able to take these up.

I have endeavored to codify the general provisions of the old specifications, amending and putting them in logical order, condensing some of the language used and adding some new provisions which seem to me important.

I have endeavored to make the specifications for asphalt pavement full and definite, and you will observe that I have changed a number of the old provisions and added many new ones. Unfortunately, in the present

state of the art, and the diversity of the asphalts upon the market, we are compelled to allow considerable latitude and elasticity on some points, and cannot, therefore, define with great accuracy some requirements; but I believe you will find that these specifications cover the field more fully and with more definiteness than any heretofore used, and if enforced with intelligent supervision, they will result in a marked improvement upon the quality of many of the asphalt pavements heretofore laid in this city. To a smaller extent I hope this will also prove true in the other kinds of pavement covered by these specifications.

I have endeavored to retain all the essential requirements of the old specifications while adding such new ones as seemed of sufficient importance.

Regarding the more important changes in the specifications, I may say:

1. The dimensions for thickness of pavements have generally been left blank, to be filled as required. The practice of making all pavements of equal thickness regardless of the character and quantity of travel to which they are to be exposed, is illogical and wholly wrong and leads to needless expenditure of money. Each street, to be paved should be separately considered, and the dimensions, or thickness, of the pavement adjusted to the conditions to be met.

2. The use of pavement foundations made of old stone blocks uncemented together is wholly wrong, and the practice is responsible for the early failure of many otherwise good asphalt pavements, and the enormous cost of their maintenance after the expiration of the contractor's guaranty. If used at all, these old stone foundations should have the joints between the blocks filled with Portland cement mortar so as to make the foundation practically equivalent to a concrete foundation. It will probably be found that it will be better economy to either

relay the old pavement blocks elsewhere or to sell them and use for pavement foundation a standard Portland cement concrete, but if used at all for foundation they should be set in accordance with these new specifications.

3. I have discarded the binder course heretofore used with asphalt pavements and have substituted a base course which, if properly constructed, will be so strong and rigid to carry pressure as the surface course.

I have always opposed the binder course heretofore largely used as being wrong in theory, and my own experience has fully confirmed this conclusion. The ablest experts now agree with me on this point.

Pavements laid under the specifications here proposed will not cost more than those heretofore constructed with the "binder" course, and will be more durable and better in every respect.

4. I have left blank not only the requirement for thickness of concrete foundation, but also the ratios of concrete materials to be used for the same general reasons given in (1) above. Streets of very heavy travel require a concrete foundation not only of good thickness, but made of rich and strong concrete, while purely residence streets of light travel may with perfect safety have a concrete foundation of less strength and thickness. There are many streets where to put down a thick foundation of rich concrete is simply to throw away money.

I will be glad to take up these matters with you more in detail at the proper time.

I have as yet prepared no specifications covering the guaranty and repair of pavements. These matters have apparently heretofore been covered by the contract, and the old specifications are silent in reference to them. I think they should be dealt with in the specifications as well as in the contract, and I shall hope before very long

to submit specifications covering this part of the contract work.

I have not attempted to revise or change the specifications relating to curbing and sidewalks, and I suggest that for the present, at least, those clauses of the old specifications relating to these matters be retained and re-numbered to follow the paving specifications herein presented. The old specifications relating to sidewalks are, in my opinion, defective and should be revised as soon as convenient.

Yours very truly.

S. WHINERY."

Q. Mr. Whinery, did you submit with that letter the new form of specifications?

A. Yes, sir.

Q. Have you kept a copy of those specifications in your office?

A. I did.

Q. Is this the copy of the specifications which you submitted?

A. It is.

The paper was received in evidence and marked "Exhibit No. 117, April 26, 1907, C. B."

Q. Mr. Whinery, did these specifications provide for remedies for those defects which you pointed out to Mr. Olney and the Borough President in those letters?

A. They did; I intended them to do so.

Q. Did you, subsequent to February 23 make any reports to the President of the Borough?

A. In reference to this particular subject?

Q. Yes, and other subjects.

A. Yes, quite a number.

Q. Did you make one such on March 13, 1905?

A. I did.

Q. What subject did that letter deal with?

A. It related to the desirability and the importance of revising the old specifications.

Q. Have you a copy of that letter in your regular letter book?

A. I have.

Q. On what page of the letter book does that appear?

A. It is on page 313.

Q. Will you tell us what that letter contains, Mr. Whinery; that is, will you read the letter?

A. The letter is dated March 13, 1905, and is as follows:

“Mr. JOHN F. AHEARN,  
Pres. Borough of Manhattan,  
City Hall, New York.

DEAR SIR—Referring to our conversation a few days since in reference to the advisability of revising the paving specifications for the Borough of Manhattan, permit me to call your attention to some of the provisions of the old specifications which I think it important to have changed, and some additions which should be made thereto.

1. The practice of constructing pavement foundations old paving stones, the joints of which are filled with earth or gravel, should be discontinued, as such a foundation is entirely inadequate for the proper support of any pavement and particularly of asphalt pavements. If the joints in these old stone foundations were properly grouted or filled with hydraulic cement mortar, as stipulated in the revised specifications submitted to you, they would make satisfactory work, and the durability of the pavements would be so increased as to far more than compensate for the slight additional cost. This additional cost would relate to the item of foundation only, and it is probable that contractors would bid a lower price for the asphalt surface than under the present specifications, since the inadequate foundation undoubtedly adds to the

cost of the five years' maintenance which the contractor guarantees. Unless this change is made in the specifications I would strongly recommend that no more asphalt pavements be laid upon these old paving stone foundations.

2. The practice of using the "binder course" described in the old specifications should be abandoned and the "base course" described in the revised specifications should be substituted. I have never favored the binder course, and those who were most instrumental in introducing it now agree with me that it is not a satisfactory construction. In fact, some of the more recent asphalt pavements on heavy traveled streets in New York have been, if I am correctly informed, constructed with such a base course as the revised specifications require, in violation of the old specifications, because the contractor believed that better work and decreased cost of maintenance would thereby result. I regard the change as important particularly on all streets having considerable travel. The change would not increase the actual cost of doing the work and contractors should bid lower rather than higher for the work, because of the economy that would result in repairs under the guaranty.

3. The present specifications are unsatisfactory in their definition of the materials to be used. Even as revised last year they permit the use of some asphalts and bitumens that should be excluded for the good of the city, and they might exclude some asphalts that are satisfactory, which, in the interest of free competition, should be admitted. The proposed revised specifications exclude asphalts affected by water and the oil asphalts unless they are manufactured under city supervision. The revised specifications are in line with our present increased knowledge of asphalts and with the best practice in constructing asphalt pavements, while the old ones not only do not require, but they do not permit of the best work, and under them your engineer department will be

unable to require or to enforce proper construction. I could enlarge on this point and go into many details which I regard as important and will do so if you desire it.

4. The old specifications are unsatisfactory in defining the quality of the materials used and the methods of making and laying hydraulic cement concrete foundations for pavements. The revised specifications call for the best modern practice in this matter.

5. The revised specifications proposed by me contain this clause:

41. Full information as to the source of the crude asphalt and the method of refining it shall be furnished by the contractor to the engineer, and verified by such evidence as he may require.

Neither the present form of contract nor the old specifications contain this requirement, which I regard as very important. Owing to the well-known difficulty of readily identifying the various varieties of asphalt, and of detecting mixtures or adulterations, it is important that the city shall be able to fully trace the source and manipulation of the asphalt offered for use. The city should be distinctly authorized to have, and the contractor required to furnish this information.

6. Under the old specifications all pavements are required to be constructed alike and of equal thickness or strength regardless of the character and quantity of travel upon the street. This is unnecessary and leads to the squandering of large sums of money by the city. Pavements, like bridges or other engineering structures, should be designed with reference to the work that will be required of them. Any money spent in making a pavement unnecessarily heavy or strong is wasted. The pavements on some of the heavier traveled streets of New York should be made stronger than the present speci-

cations require, but a very large number of them can be, with perfect safety, decreased in strength and cost, and a very large sum of money in the aggregate may thus be saved to the city. The revised specifications are so framed as to permit the variation in dimensions thus contemplated.

7. I have referred above to only a few of the more important items in which I think changes in the present specifications are defective or are palpably wrong. I might extend the list, but it hardly seems necessary. The old specifications are, aside from their positive defects, antiquated, indefinite and badly arranged, and this alone would be, in my opinion, sufficient reason for revising them.

It seems to be unlikely that uniform revised specifications could be adopted by all the boroughs in time for the coming season's work, however desirable that may be. Allow me to suggest, however, that, if my understanding be correct, there is nothing to prevent you from adopting them for use in the Borough of Manhattan at once. I believe that such action would be warranted by the existing conditions and would be of such manifest benefit to the borough as to not only vindicate your action, but to redound greatly to your credit. I believe that the improvement would be so obvious as to make their general adoption by all the boroughs, for next year's work, reasonably certain.

But in case you should for any reason think it inadvisable to adopt the revision as a whole, I strongly recommend that the old ones be changed in the particulars enumerated above.

Yours very respectfully,

S. WHINERY,  
Consulting Engineer."

*Q.* Mr. Whinery, I notice that in the two reports of February 23 and that of March 13, which you have just



read, you address yourself to the Borough President personally. Now, is it not usual for a consulting engineer to address himself to the chief engineer of the bureau?

A. I think so, sir.

Q. Will you explain to us why these reports were addressed personally to the Borough President?

A. Well, in the beginning I began addressing the reports through the engineer of the department. Later on I was advised by the President that since I had been employed as the consulting engineer of his department particularly, or of his office particularly, that he preferred that I should address my communications directly to him.

Q. You were so requested to do by the President personally, is that correct?

A. Yes, sir.

Q. Now, Mr. Whinery, I suppose you had conversations on these subjects with the President?

A. Yes, quite a number.

Q. Was the President sufficiently informed on these technical subjects to be able to form a judgment upon the value of the reports which you submitted to him?

A. Why, I think so. I found him a very intelligent man.

Q. What I meant to ask was whether he had sufficient technical knowledge of the subject to be able to form a judgment of the technical value of the suggestions?

A. Oh, I suppose not. Very few men who are not experts in this department have.

Q. Did he make you any explanation for his request that you address these reports to him personally?

A. None, I believe, except that he regarded me as the personal adviser of his office.

Q. Did you address another report to the Borough President on or about March 15, 1905, Mr. Whinery?

A. I did, yes, sir.

Q. On what general subject was that letter, Mr. Whinery?

A. It seems from the heading to relate again to the revised specifications.

Q. On what page of your letter book does that appear?

A. It begins on page 329.

Q. Will you give us the contents of that letter, please, Mr. Whinery?

A. This letter is somewhat mixed up because it was first addressed to the chief engineer of the department and afterwards, in accordance with the request, it was revised in its introduction and sent to the President, so that it appears in two different places, the complete letter, with marginal notes that explain it. Shall I read it?

Q. What is the date of it again?

A. The date is March 15.

Q. Yes, please read it.

A. (Reading)—

“HON JOHN F. AHEARN,

President Borough of Manhattan.

DEAR SIR—Pending the consideration of the revised specifications for paving submitted by me, there are a few matters which, in view of the probable early letting of contracts, should, in my opinion, receive immediate consideration.

1. The present specifications seem to require a uniform system of construction and dimensions for all pavements of each variety throughout the city. As in the case of other engineering constructions, pavements should be designed with reference to the work that will be required of them, and therefore the pavement for each street should be considered with reference to the character and quantity of the travel and other conditions to which the street is likely to be subjected, and the pavement designed accordingly. This discrimination should apply not only to the kind of pavement to be used, but to the dimensions or strength of the particular pavement selected.

In the case of sheet asphalt pavements the thickness of both the foundation and surface courses may be varied. On such streets as Broadway, and others carrying a very heavy travel, a hydraulic concrete foundation as much as seven inches thick, of the best quality, may be necessary for the proper support of the surface, while on a very large number of the light travelled residence streets a concrete foundation four inches thick is ample, and any money spent to make a heavier foundation will be absolutely wasted. I know this to be true from experience. I can name a large number of streets in various cities paved ten to fifteen years ago with asphalt on a four-inch concrete foundation, that have been giving the most satisfactory service. Some of these foundations have had the asphalt surface over them renewed, and were found, when uncovered, to be in perfect condition.

Furthermore, the relative strength of the concrete—the ratio of cement to sandstone—may be varied with the travel on the street with perfect safety, resulting, in the case of streets of light travel, in very materially reducing the cost of the work. So also the thickness of the asphalt surface may, and should be varied with the requirements on each street.

I would therefore recommend that each street to be paved, be considered separately, and the pavement, whatever its kind, designed with reference to the actual conditions to which the pavement is likely to be subjected.

2. The present specifications for wood block pavement permit the use of blocks only three and one-half inches in depth, as set on the streets, and I have seen such blocks put down in this city on streets carrying a very heavy travel.

While a depth of three and one-half inches may be quite sufficient for the blocks on residence streets of light travel, it is, in my opinion, most unwise to permit blocks of that depth to be laid on streets of anything like heavy

travel. Pavements constructed with blocks of that depth may be safely advocated by the contractor, because the pavement will, without much doubt, last to the end of the period of guaranty, when his responsibility ceases, but the city must consider the probable endurance of the pavement for a much longer period.

Wood blocks as short as three and one-half inches are not sanctioned by good practice, and have not heretofore been permitted in cities where the merits and demerits of wood block paving are best known from experience. Such shallow blocks have a very small margin for wear before they become so reduced in length as to be unstable in their position and liable to be split up and dislodged by travel. Furthermore, the tendency of the wood blocks to split and break up under heavy travel increases much more rapidly than their length decreases. We do not know with any certainty the rate of wear of creosoted yellow pine blocks under the very heavy travel of New York's busy streets, but judging from such data as we have on the subject, we may safely conclude that it will be sufficient to destroy a pavement made with blocks three and one-half inches deep in a comparatively few years, and long before the blocks, if properly creosoted, will be destroyed by natural decay. I therefore regard it as very poor economy to lay blocks of this depth upon streets of heavy travel. It would be far cheaper in the end to pay the additional cost of longer blocks, which would be reasonably sure not to wear out longer before the wood begins to decay. In my opinion no blocks of less depth than five inches should be laid on the lower New York streets carrying a heavy travel.

It must be remembered that notwithstanding the claims or representations of contractors interested in the promotion of wood block pavement, our experience with creosoted yellow pine block pavement has not been sufficient to warrant the city in proceeding otherwise than conservatively in its use. Such experience as we have

certainly does not justify the use of blocks three and one-half inches long under heavy travel.

3. The present specifications stipulate that asphalt blocks shall be three inches in depth as laid. With blocks of first rate quality, this depth is sufficient for use on suburban streets of light travel, but it is unwise to use shallow blocks for the pavement of narrow streets carrying heavy travel in lower New York. For such streets blocks not less than five inches in depth should be specified.

In passing the corner of Cedar and Church streets to-day I noticed that the asphalt block pavement on Cedar, just above Church, was being quite extensively repaired. The old blocks which were being removed were worn down to a thickness of from one inch to one and one-half inches. I do not know what was the original thickness of these blocks, nor when they were put down, but they strongly confirm the opinion here expressed that on such streets no blocks less than five inches in thickness should be used.

The use of the three-inch blocks is sometimes advocated, on the ground that sheet asphalt is laid of equal or less thickness; but it is well known that asphalt block pavement wears down much more rapidly than sheet asphalt under equal travel, and to give equal service the block pavement should be relatively much thicker than the sheet asphalt.

I have avoided going into details in the above, but will be glad to take them up with you at any time.

Yours very truly,

S. WHINERY,  
Consulting Engineer."

Q. Mr. Whinery, did you write the Borough President another report on the same date?

A. I do not recall. I will look for it. Yes, I believe I wrote him on March 15th in reference to the specifications for wood block pavement.

Q. On what page of your letter book does that appear?

A. It is on page 331.

Q. Will you give us the contents of that letter, Mr. Whinery?

A. (Reading)—

“March 15, 1905.

Hon. JOHN F. AHEARN,

President Borough of Manhattan,  
City Hall, New York:

DEAR SIR—I have to-day seen for the first time a copy of the specifications for wood block pavement in the Borough of Brooklyn, and I assume that those used in the Borough of Manhattan are the same. If so, I very strongly advise that these specifications be revised before any more contracts for that kind of pavement be let.

These specifications permit the use of but one kind of wood and practically constitute a monopoly for one kind of wood pavement in the city. But more important is the fact that they are so incomplete and indefinite that they permit the contractor entirely too much latitude in the preparation of the material and laying it on the street, and under them the city must depend largely upon the good intentions, skill and honesty of the contractor.

Yours very respectfully,

S. WHINERY,  
Consulting Engineer.”

Q. Mr. Whinery, did you write the President a report on or about March 17, 1905?

A. I find I did.

Q. On what subject was that letter or report?

A. There had been, as I recall it, submitted to me a

new set of specifications for wood block pavement which I looked over and reported on as follows. Shall I read it?

*Q.* If you please.

*A.* (Reading)—

“March 17, 1905.

HON. JOHN F. AHEARN,

President Borough of Manhattan,

City Hall, New York:

DEAR SIR—In compliance with your verbal request I have examined the specifications for wood block pavement transmitted to you by the Commissioner of Public Works, as per his letter of the 10th instant (463 Pr.) and I beg leave to submit the following remarks thereon:

These specifications are much more definite and satisfactory than those now in use, about which I wrote you yesterday.

I would respectfully recommend that the thickness of the concrete foundation and the depth of the wood blocks be left blank in the specifications, so that these dimensions may be varied with the quantity and character of travel, and other conditions on the street, as referred to more fully in my letter to you dated the 15th instant.

Section 39. No wooden blocks having a depth as set on the street of but three and one-half inches should be used on city streets having a considerable quantity of travel. For the downtown business streets the blocks should be in no case less than five inches deep.

The requirement that all blocks shall be exactly eight inches long is unnecessary. It restricts the use of material otherwise satisfactory, and thereby tends to increase the cost of the work. Blocks may be safely allowed to vary in length from seven to ten inches, and where they are five inches in depth, a length of twelve inches is not unobjectionable.

There is no good reason why the kind of wood should be restricted to Long Island Yellow Pine. There are a number of species of wood, which, if properly creosoted, make pavement equally as good as the kind specified. Nor is it necessary that the sap wood of long leafed yellow pine should be excluded. Properly creosoted sap wood of this timber is as durable and serviceable for pavement as heart wood. The specifications do not exclude 'fat' wood—that is, wood saturated with resin. Where the pores of the wood are filled with resin it does not properly absorb the creosote oil.

Treatment. Dead oil of coal tar only should be used for treating the wood. The admixture of resin with it is practically an adulteration that should not be permitted. Pine wood contains naturally more or less resin—as much certainly as it is beneficial in the process of creosoting. To dip the treated blocks in resin after they come from the drying cylinders is held by some to be useful for excluding water, but any admixture of resin with the dead oil should not be permitted. The quantity of oil that the wood will take up varies with the character and texture of the wood. The general requirement should be that the wood shall be penetrated and its pores contain sufficient oil to properly preserve the wood. For paving blocks of ordinary wood from twelve to fifteen pounds of dead oil per cubic foot is ample.

The specifications stipulate that the blocks shall first be subjected in the cylinders to dry heat, instead of steam. The almost universal practice in creosoting timber is to submit it, when first put in the cylinders, to high pressure steam. Dry heat does not serve the same purpose and should not be substituted for the steam. Treatment with dry heat for the time stipulated in these specifications, one hour, would not properly remove the sap and moisture. High pressure steam should be applied for at least two hours and a half. The usual time al-



lowed for this part of the process in ordinary lumber is from five to seven hours, but with the short paving blocks a less time would be equally efficient. The temperature specified, 285 F., is considered too high; it should not exceed at any time 270 F., and 250 F. would be sufficient and safer.

In general these specifications permit of a rapid, cheap and ineffectual process of treatment, not in accordance with the recognized good practice in creosoting wood, and they should be modified in this respect.

**Dead Oil.** The specifications for the dead oil are very full and seem to be satisfactory. As I am not an expert chemist, I cannot speak confidently on this subject. The usual specifications require that the material be dead oil of coal tar (wood creosote oil should not be permitted), that it shall contain not more than one and one-half per cent. of water, not more than five per cent. of tarry material, and not flash below 185 F. It should contain approximately fifty per cent. of Naphthaline.

**Section 43.** The only inspection of any practical value is that of the lumber before it goes to the treating cylinders, and inspection of the treatment. Any formal inspection of the blocks on the street is useless. But the inspection of the lumber, and of the process of treatment, requires, to be of any value, a higher order of intelligence and technical knowledge than is possessed by the average city pavement inspector.

**Section 53.** Slushing the joints with mortar is of at least doubtful utility. If the blocks are well formed and set as close together as possible (as the specifications require) no appreciable quantity of mortar that is not so thin as to be valueless can be run into the joints. Dry and rather fine sand swept into the joints would serve the

purpose almost if not quite as well and would not cost so much as the mortar.

Papers returned herewith.

Yours very respectfully,

S. WHINERY,  
Consulting Engineer."

JAMES E. KEELER, recalled for further examination, testified as follows:

*Examined by Commissioner MITCHEL:*

*Q.* What is your business, Mr. Keeler??

*A.* Assistant manager of the Title Guarantee & Trust Company.

*Q.* Is the Title Guarantee & Trust Company a successor to the Manufacturers' Trust Company?

*A.* Yes, sir.

*Q.* Does it as successor of the Manufacturers' Trust Company hold a certain assignment of patent made by the United States Wood Preserving Company and dated August 6, 1902?

*A.* Yes, sir.

*Q.* (Handing paper) Is this the assignment of that patent?

*A.* It is.

The paper was received in evidence and marked "Exhibit No. 118, April 26, 1907, C. B."

Commissioner MITCHEL (Reading)—

"Assignment. Whereas letters patent of the United States, No. 681,032, dated August 20th, 1901, for an improvement in methods of preserving wood, were granted to Andries Bevier, assignor, by assignments to Eversley Childs of Layville, Suffolk County, New York, which invention and the said

letters patent therefor the United States Wood Preserving Company is now the sole owner; and

Whereas, The Manufacturers' Trust Company is desirous of acquiring said invention and said letters patent, now this indenture witnesseth that in consideration of One Dollar, the receipt of which is hereby acknowledged, and subject to the terms and provisions of a certain mortgage or deed of trust dated July 9th, 1902, made and executed by and between the United States Wood Preserving Company, and the Manufacturers' Trust Company, the said United States Wood Preserving Company, a corporation organized and existing under the Laws of the State of New Jersey, having its office in The City of New York, Borough of Manhattan, County and State of New York, hereby sells, assigns and transfers unto the Manufacturers' Trust Company, a corporation organized and existing under the Laws of the State of New York, and having its office in the City of New York, Borough of Manhattan, County and State of New York, the said invention, in and for the United States, and all right, title and interest in and to said invention, in and for the United States, and in and to the letters patent of the United States granted and issued on said invention.

The same to be held and enjoyed by the Manufacturers' Trust Company and its successors and assigns subject to the terms and provisions of the aforesaid mortgage or deed of trust, until the end of the term for which said letters patent are granted, as fully and as entirely as the same would be held and enjoyed by the United States Wood Preserving Company if this assignment and sale had not been made.

And for the consideration above specified the United States Wood Preserving Company also sells,

assigns and transfers and sets over to the Manufacturers' Trust Company all debts, dues, demands, claims or actions, either in law or in equity, to which the said United States Wood Preserving Company is entitled from any person, firm or corporation, or damages or profits accrued or to accrue by reason of any infringement of said letters patent No. 681,032; and the United States Wood Preserving Company authorizes and empowers the Manufacturers' Trust Company to ask, demand, sue for, compromise, collect, receive and give acquittance for said debts, dues, demands, claims or actions in the name of the Manufacturers' Trust Company and for its own use and benefit.

Witness the hand and seal of the United States Wood Preserving Company, by its president, this 6th day of August, 1902.

THE UNITED STATES WOOD PRESERVING COMPANY,  
(SEAL) By WILLIAM H. CHILDS, President.

Sealed and delivered in the presence of  
W. H. MARSHALL.

STATE OF NEW YORK, }  
COUNTY OF NEW YORK, } ss.:

Acknowledged before me by the said William H. Childs, President of the United States Wood Preserving Company, this sixth day of August, 1902.

WILLIAM H. MARSHAL,  
Notary Public, Kings County,  
Certificate filed in New York County."

Q. Has your company in its possession the deed of trust or mortgage referred to in that assignment?

A. Yes, sir.

Q. (Handing paper) Is this that deed of trust or mortgage?

A. Yes, sir.

Q. Are you acquainted with the terms and provisions of this deed of trust or mortgage?

A. No, sir.

The paper was received in evidence and marked "Exhibit No. 119, April 26, 1907, C. B."

Commissioner MITCHEL (Reading)—

"This indenture, made this 9th day of July in the year One thousand nine hundred and two, by and between the United States Wood Preserving Company, a corporation incorporated under the Laws of the State of New Jersey, party of the first part, and the Manufacturers' Trust Company, a corporation organized under the Laws of the State of New York, and hereinafter called Trustee, party of the second part,

Witnesseth: That whereas it is necessary in order to enable said Company to provide funds for the payment of its floating indebtedness for the exercise of its corporate rights and privileges, and that it shall borrow money to the amount of Two hundred thousand dollars by issuing bonds aggregating at par value that amount; and

Whereas, At a meeting of the Board of Directors of the United States Wood Preserving Company, the said Board of Directors by a unanimous resolution did authorize the making and issue of bonds in the name of said Company to the amount of Two hundred thousand dollars, the same to be issued forthwith upon the execution and delivery of this mortgage or deed of trust, said bonds to be first mortgage six per cent. gold bonds of the denomination of One thousand dollars each, numbered consecutively from one to two hundred, both inclusive, and the execution and delivery of the mortgage or

deed of trust as security therefor, the proceeds of said bonds to be used for the purposes aforesaid, which resolution provided that said bonds should be in the following form, to wit:”

The stenographer will note that on pages 2 and 3 appears the form of the bond to be used, and on page 3 in part appears the form of coupon to be used. That on page 5 appears the following clauses:

“Now, therefore, the United States Wood Preserving Company, party of the first part, under the authority and power as aforesaid and in consideration of the premises and of the mutual covenants herein contained, and the sum of One dollar to it in hand paid by the party of the second part on or before the ensealing and delivery of these presents, the receipt whereof is hereby acknowledged, and in order to secure the payment of the principal and interest of the bonds herein mentioned and of the coupons accompanying the same, as executed and delivered these presents with all the covenants and conditions herein and has granted, bargained, sold, aliened, released, conveyed and confirmed to the said party of the second part and to its successor and successors in the trust hereby created, all and singular the following estates, leases, leaseholds, interests, properties, rights, privileges and franchises of the United States Wood Preserving Company, that is to say:”

The stenographer will note that following this is a description of the plant of the Company. That on page 7, at the close of a clause describing the plant conveyed appears the following:

“And together with all the United States and foreign patents issued or assigned to the said party of the first part, now owned and enjoyed by it, and all licenses, and privileges of any kind now owned or enjoyed by the said party of the first part under

United States Letters Patent or Patents of foreign countries, together with the good will, trade marks, trade names, recipes and processes of the said party of the first part, now owned or used by it at its plant at Perth Amboy, New Jersey, or elsewhere in its business, all set forth in a certain schedule hereto annexed marked Schedule A."

That upon page 18, Paragraph 16, is as follows:

"It is mutually agreed between the parties hereto that if the said party of the first part, its successors or assigns shall well and truly pay or cause to be paid the several sums of money in the several bonds hereinbefore mentioned with interest according to the true intent and meaning of the said bonds and each of them, or if said bonds and the interest thereon shall become in any way paid or satisfied, and if the Company, its successors or assigns shall well and truly perform and observe all and singular the covenants, promises and conditions in the said bonds and coupons and in this indenture expressed to be kept and required to be observed by it on the part of the Company, then these presents and the estates and rights hereby granted shall cease and determine and be void, and the said trustee, its successors and assigns shall on demand reassign and deliver to the party of the first part, its successors and assigns, all and singular the property hereby granted, sold and assigned but not previously disposed of as herein provided. Otherwise these presents shall be and remain in full force and effect."

The stenographer will note that Schedule A consists of a list of the properties and rights and patents granted in this mortgage or deed of trust, and that among the rest the following item appears:

"United States Patent No. 681,032."

That upon page 23 appears the signatures in execution of this document, as follows:

"United States Wood Preserving Company, William H. Childs, President.

The Manufacturers' Trust Company, Frank L. Sniffen, Third Vice-President."

SAMUEL WHINERY, recalled for further examination, testified as follows:

By Commissioner MITCHEL:

*Q.* Mr. Whinery, did you on or about March 18, 1905, make another report to the President of the Borough?

*A.* I wrote him a letter, yes.

*Q.* On what subject was that?

*A.* That was again on the subject of wooden pavements apparently.

*Q.* (Handing paper) Is this the letter, Mr. Whinery?

*A.* It seems to be; yes, sir.

The paper was received in evidence and marked "Exhibit No. 120, April 26, 1907, C. B."

Exhibit No. 120 is as follows:

"NEW YORK, March 18, 1905.

*Personal*

Hon. JOHN F. AHEARN,

Pres. Borough of Manhattan,

City Hall, N. Y.:

DEAR SIR—There is one feature of the specifications for wood-block pavement which I did not refer to in my official comments on them yesterday, intending to speak to you about it when I called; but as I did not find you in, I think it may be best to put what I have to say in the form of a personal letter, so that you can make any disposition of it you think best. I avoided referring to the matter in my



official letter because public agitation of it now, at the beginning of the season's paving work, might be obstructive and lead to serious delay.

These specifications confine the wood-block paving business to practically one process of wood treatment,—the so-called "Creo-resinate" process. This process is, if I am correctly informed, covered by patents, and if so it comes under the charter inhibition of patented pavements, and restricts competition to the owners of the patents.

As to the merits of the process, its owner and promoters claim, and no doubt believe it to be superior to the standard creosoting process. I think I can say confidently that most engineers and experts in wood preserving, while they regard the process as promising, do not feel that experience with it has yet been sufficient to warrant its adoption as a substitute for the old proven creosoting process.

Personally, I am inclined to believe it to be safe and satisfactory for paving blocks, but I am not prepared to advocate it for public work as a substitute for the old creosoting process which we know, from long experience, to be efficient, and my remarks on the specifications were dictated by this conservative view, as well as by the fact that the old process is open to all, and cannot therefore foster monopoly. The more important question, however, it seems to me, relates to the advisability of using a patented material rather than to the merits of that material.

Yours most respectfully,

S. WHINERY."

*Q.* Did you write the Borough President another report on or about April 1st?

*A.* I do not seem to have any of that date; no, sir.

Q. I think I made a mistake in the date; I should have asked you if you wrote a report on or about April 10th?

A. Yes, sir.

Q. (Handing paper) Is this the letter, Mr. Whinery?

A. It appears to be; yes, sir.

The paper was received in evidence and marked "Exhibit No. 121, April 26, 1907, C. B."

Exhibit No. 121 is as follows:

"April 10, 1905.

*Personal*

Hon. JOHN F. AHEARN,

Pres. Borough of Manhattan,

City Hall, N. Y.:

#### PATENTS ON WOOD PAVING BLOCKS.

DEAR SIR—Referring to my letter to you of March 18th last; I have made some inquiry as to whether the wooden block pavement laid in this city is covered by patents, and beg to advise you of the results.

I seem to have been right in my understanding that what is known as the "Creo-resinate" process of preserving timber is patented, but the United States Wood Preserving Co. assert that your specifications do not require, nor does the Company employ that process in making the paving blocks used in this City.

Two patents have been examined and seem to bear upon the subject.

U. S. Patent No. 404,303 issued to J. W. Putnam May 28, 1889, claims a process of preserving wood by filling the pores with a mixture of creosote oil, resin and petroleum or other oils. Whether this patent covers the use of a combination of creosote

oil and resin alone, is a question for a patent Attorney rather than an Engineer. From my general knowledge of the subject I am inclined to think that the use of a combination of creosote oil and resin for treating timber would be regarded as an infringement of this patent. You will note that this patent expires on the 28th of May, 1906.

U. S. Patent No. 681,032 issued to Andries Bevier August 20, 1901, and assigned to Eversley Childs, is, if I am correctly informed, the patent upon which the "Creo-resinate" process is based. It claims the treatment of wood, first with a combination of creosote oil, resin, and formaldehyde, and then with resin of lime, or milk of lime.

The process of treatment required by your specifications requires the use of creosote oil and resin only, and the officers of the United States Wood Preserving Co. say that they do not use the formaldehyde, or the lime, and our observations at the plant confirm this statement.

The question whether either these patents, or others not brought to my attention, cover the process of treating wood-paving blocks prepared according to your specifications, is one that I am not competent to decide.

If you deem it advisable to investigate the matter further, it should be referred to a competent attorney familiar with the patent laws.

Yours very respectfully,

S. WHINERY,  
Consulting Engineer."

Q. Did you write the President of the Borough another report upon April 10th?

A. Yes, sir.

Q. (Handing paper) Is this the letter?

A. Yes, sir.

The paper was received in evidence and marked  
"Exhibit No. 122, April 26, 1906, C. B."

Exhibit No. 122 is as follows:

"April 10, 1905.

Mr. JOHN F. AHEARN,

Pres. Borough of Manhattan,

City Hall, N. Y.:

#### INSPECTION OF WOOD PAVING BLOCKS.

DEAR SIR—In company with Chief Engineer George R. Olney I visited the works of the United States Wood Preserving Co. at Perth Amboy, N. J., on Friday last for the purpose of inspecting the plant, the method of treatment of wood paving blocks, and the material used.

The method of treating the wood paving blocks complies with your specifications and the work appears to be well done.

The wood used for the manufacture of paving blocks, as found both in the stock of lumber on hand, and the treated blocks inspected, does not comply wholly with the specifications, which provide that—

"1. The wearing surface shall be composed of long leaf, all heart, yellow pine blocks, treated as hereinafter described, All blocks shall be of sound timber, free from bark, sap-wood, loose or rotten knots, or other defects which shall be detrimental to the life of the block or interfere with its laying. No second-growth timber shall be allowed."

A part of the timber used is not long leaf, yellow pine. A part of it is loblolly pine, and second-growth timber.

In this preliminary inspection I did not undertake to determine what percentage of the timber is pine other than leaved yellow pine, but that percentage probably would vary from five to ten per cent. These timbers have much less strength and endurance than the true long leaved yellow pine, and paving blocks made from them are sure to wear away more rapidly than those of the long-leaved yellow pine, rendering the surface of the pavement, in time, uneven and imperfect. If they are allowed to be used at all, blocks of each kind should be separated and laid together, and not mixed together in laying the pavement.

While the difference between the lumber of the several species of Southern pine is generally well marked, they often blend into each other in appearance, so that it is difficult for any one but an expert to separate them satisfactorily.

If it is desired to enforce the specifications strictly, it will be necessary to have a competent inspector at the plant constantly while the blocks are being manufactured. He should be a man having a large experience in the inspection of Southern pine.

The lumber is not free from sapwood, as the specifications require. I do not, however, regard this of great practical importance, as the amount of sapwood is not excessive, and this sapwood, when sound and properly treated, is about as strong and durable as heartwood. In other respects, the lumber we saw was mostly sound and of good quality.

Yours very respectfully,

S. WHINERY,  
Consulting Engineer."

*Q.* Did you write the Borough President a report on or about April 24th, 1905, Mr. Whinery?

*A.* Yes, sir.

*Q.* Is this the letter?

*A.* Yes, sir.

The paper was received in evidence and marked "Exhibit No. 123, April 26th, 1907, C. B."

Exhibit No. 123 is as follows

"April 24, 1905.

Hon. JOHN F. AHEARN,

President Borough of Manhattan,  
City Hall, New York.

DEAR SIR—I would respectfully recommend that hereafter contracts be not awarded to bidders upon street paving work, where samples of the materials to be used are required to be submitted by the bidder, until these samples shall have been examined and reported upon by the Consulting Engineer. Such examination and report will generally require an analysis by the chemist of the samples submitted, to determine their character satisfactorily.

I am preparing a schedule of the laboratory work I think should be done on samples of asphalt, and will suggest to the chemist that it be followed in the future.

I make this recommendation because there may be a legal question as to whether the samples are not a part of the contractor's bid, and, if so, whether the award of a contract under such bids may be not held as an acceptance by The City of the material represented by the samples.

Yours very respectfully,

S. WHINERY,  
Consulting Engineer."

Q. Did you make a further report to the President of the Borough on April 24th, 1905, Mr. Whinery?

A. Yes, sir.

Q. (Handing paper). Is this the letter?

A. Yes, sir, that is the letter.

The paper was received in evidence and marked "Exhibit No. 124, April 26th, 1907, C. B."

Exhibit No. 124 is as follows:

"April 24, 1905.

Hon. JOHN F. AHEARN,  
Pres. Borough of Manhattan,  
City Hall, New York.

DEAR SIR—I am to-day in receipt of the report of the Chemist of the Bureau of Highways, giving the result of certain examinations which I had asked him to make of the samples of crude and refined asphalt submitted by the Asphalt Construction Co. with its bids opened March 20th, ult.

The results of this chemical examination confirm the opinion expressed in my letter to you of the 5th inst. that the sample of refined asphalt could not have been prepared from any process of refinement of the sample of crude.

The sample of refined asphalt appears to be largely, and may be wholly prepared from the distillation of asphaltic oil. Neither the sample of crude nor that of refined asphalt appear to comply with your specifications, and their use in asphalt pavements should not be permitted.

Yours very respectfully,

S. WHINERY,  
Consulting Eng."

*Q.* Mr. Whinery, can you say whether or not the pavement was laid from those samples?

*A.* No, I cannot, sir.

*Q.* Did you write a report to the Borough President on or about April 27, 1905?

*A.* I appear to have done so.

*Q.* Have you a copy of that letter in your letter book, Mr. Whinery?

*A.* I have.

*Q.* Will you give us the contents of it?

*A.* The letter reads as follows:

"April 27, 1905.

Hon. JOHN F. AHEARN,

Pres. Borough of Manhattan,

City Hall, New York.

DEAR SIR—I have visited Broadway and 121st street and examined the asphalt paving blocks delivered there for the pavement of Broadway.

I found a good many of these blocks defective in their manufacture, their corners being soft and spongy, apparently from lack of proper compression or proper manipulation in the press. The majority of them seem, however, so far as ocular examination can determine, to be of good quality and suitable for the work. I have asked the Chemist to make certain laboratory examinations of samples, and if these develop anything of importance I will advise you further. In the meantime, I think that before any blocks are laid they should be inspected and all those that seem defective should be discarded.

Incidentally, I observed the concrete being used in the foundation and the method of mixing it. The sand and cement were not being first made into mortar before the crushed stone is added, as the specifications require and as good practice demands. I regard this as an important deviation from the specifications, and recommend that it



be corrected; also that the mixture of the concrete be more thorough than I found it being done.

I have already spoken to Mr. Olney about these matters.

Yours very respectfully,

S. WHINERY,  
Consulting Engineer."

*Q.* Mr. Whinery, did you also make a report to the Borough President on May 1, 1905?

*A.* I did, sir.

*Q.* (Handing paper) Is this that report?

*A.* It is.

The paper was received in evidence and marked "Exhibit No. 125, April 26th, 1907, C. B."

Exhibit No. 125 is as follows:

"May 1, 1905.

Hon. JOHN F. AHEARN,

Pres. Borough of Manhattan,  
City Hall, New York.

DEAR SIR—Referring to a previous conversation on the subject, I wish to again call attention to the importance of having a competent inspector constantly at each asphalt paving plant when it is running on city contract work.

Contractors are not usually careful enough, in making the pavement mixture, to comply with the conditions necessary to secure good work. Among those conditions are the proper proportioning of the materials, the maintenance of temperatures neither too high nor too low in heating the sand and the asphalt, and the use of asphaltic cement of proper and uniform consistency. Also to see that the materials used are of the specified quality, as a variety of such materials are frequently stored in each yard.

These inspectors should be furnished with an outfit of simple testing apparatus, for making the necessary examinations. Such an outfit will probably cost not more than \$25.00 for each yard. The inspectors should make daily written reports to the Chief Engineer of the Department, upon blank forms provided for the purpose.

I understand that street inspectors are already provided for. These should be present on the street constantly when asphalt pavement is being laid. They should be provided with thermometers costing perhaps \$3.00 each for testing the temperatures of the mixtures, as they arrive at the street and as they are laid. The street inspectors should also make daily reports to the Chief Engineer on printed blank forms provided for the purpose.

Yours very respectfully,

S. WHINERY,  
Consulting Engineer."

*Q.* Mr. Whinery, did you make a further report to the Borough President on May 3, 1905?

*A.* I wrote a letter; these hardly rise to the dignity of reports, but it is a letter to the President.

*Q.* (Handing paper) Is this the letter?

*A.* Yes, sir.

The paper was received in evidence and marked "Exhibit No. 126, April 26th, 1907, C. B."

Exhibit No. 126 is as follows:

"May 3, 1905.

Hon. JOHN F. AHEARN,

Pres. Borough of Manhattan,  
City Hall, New York.

DEAR SIR—I was surprised, on visiting Broadway and 122d street yesterday, to find that the laying of asphalt blocks was proceeding, as I had understood

that no blocks were to be laid until the investigation of the blocks supplied there shall be completed.

On visiting the work again to-day, I find the block laying still in progress, the pavement having been laid and mostly completed on the east side, from 119th street to 123d street.

I observed both yesterday and to-day that the blocks are being laid in flagrant disregard of the specifications. The specifications require that the blocks shall be set in a bed of mortar one-half inch thick—the mortar to be composed of one part cement and four parts sand. Both yesterday and to-day I found the contractor setting the blocks upon a bed of dry sand, apparently with no trace of cement in it, and certainly not made into mortar as required. Where the blocks are laid upon their side, as they are on this contract, and where travel on the street is now, or likely to be considerable, I regard it as very important that this mortar bed should be used and that it should be made of the quality called for in the specifications.

I noted that the specifications were not being complied with in some other minor particulars, but I do not regard these as of any special importance, so far as they affect the quality of the work.

Concrete foundation was not being laid either yesterday or to-day when I was on the work, and I therefore had no opportunity to see whether the defects reported to you some days since have been remedied in that part of the work. I hope to be able to report to you on the quality of the asphalt blocks to-morrow.

Yours very respectfully,

S. WHINERY,  
Consulting Engineer."

*Q.* Mr. Whinery, when you visited this work on Broadway referred to in this letter, did you find an inspector present on the street supervising this work?

*A.* I do not recollect. I could probably find out by turning to my notes that I made.

*Q.* Certainly you may do that.

*A.* I have no note in reference to it. I could not say. As a rule, I paid very little attention to whether the inspectors were present or not.

*Q.* Mr. Whinery, would it have been possible for an inspector to have been present on that work and failed to note the violation which you referred to in that letter?

*A.* Oh, yes. Well, I will modify that. That practice of using practically a loose sand bed or a bed of mixed sand and cement and practically dry was in common use all over the city, and I understood had been for two or three years, and custom seemed to have sanctioned it, and everywhere that I found it the inspectors were permitting it.

*Q.* Then it was a common thing all over the city on the part of the inspectors to permit a violation in that respect?

*A.* You understand that this was only used under some kinds of pavements, under block pavements.

*Q.* Yes.

*A.* In those cases I think the practice was common in the city, I think universal.

*Q.* But when so used under the asphalt block pavement it constituted a violation of the specifications, did it not?

*A.* There is no question of that.

*Q.* Did you make a further report to the President of the Borough on May 5, 1905, in this connection?

*A.* Well, I find a long report here on the subject, but I do not think it is dated; the date has not been copied in the letter book.

*Q.* Well, without reading that report in full, will you state briefly what the questions were which you drew to the attention of the Borough President?

A. Well, the report concludes this way:

"Conclusion.—I am therefore compelled to conclude that the paving blocks delivered on Broadway are of inferior quality, and that their use for paving the street should be prohibited.

Unfortunately, your present specifications are very lame as regards any standard of quality for asphalt paving blocks. Requirements for the degree of compression or density of the block, or for its strength or resisting qualities, are entirely absent. But Sections C, F and O of the general contract confer upon the Engineer the right to judge of the quality and suitability for the purpose of all materials to be used, and he undoubtedly is empowered to reject any material which in his judgment is not up to the proper standard of excellence."

Q. Mr. Whinery, after you had drawn to the attention of the Borough President the fact that those blocks were unsuitable for pavement on that street, as you say in that report, were they rejected?

A. I have to depend upon my recollection for that, sir. It was decided to go over the blocks carefully and throw out all that appeared defective in any way, and all that varied within certain limits from the standard size specified or named in the specifications. And the blocks so selected were permitted to be used on the street with my approval.

Q. When you refer to going over the blocks, do you mean those laid or those not yet laid?

A. Well, when I made this report which I read a few pages back, saying that I was surprised to find the work progressing, the President immediately stopped the work, and upon my verbal recommendation, I think, he had every block taken up from the beginning. Then later the blocks were gone over and culled, as I say, and the proper kind of mortar bed was put under them and they were relaid in very good shape.

Q. And in this case your recommendation was accepted and followed?

A. Yes, sir.

Q. Did you make a further report to the President of the Borough on or about May 12, 1905?

A. Well, I find, if you will permit me to mention it, that on May 10 I wrote a letter to the Acting President of Manhattan, suggesting that that examination and culling of the blocks be made. That was done. Yes, sir, I wrote a letter on May 12 to Mr. Ahearn.

Q. (Handing paper) Is this the letter, Mr. Whinery?

A. It is.

The letter was admitted in evidence and marked "Exhibit No. 127, April 26th, 1907, C. B."

Exhibit No. 127 is as follows:

"May 12, 1905.

HON. JOHN F. AHEARN,

Pres. Borough of Manhattan,  
City Hall, New York.

DEAR SIR—I have heretofore supplied a set of proposed revised specifications covering sheet asphalt, asphalt block, rock asphalt and granite block pavements.

I beg to hand you herewith revised specifications for wood block pavements.

These specifications are purposely so framed as to admit of wide competition in this kind of pavement, while requiring the best material and workmanship.

1. They permit the use of species of wood other than long leaved yellow pine for the making of blocks, any of which, when properly treated, are almost if not quite as good, and some of them superior to long leaved yellow pine.

2. These specifications define clearly the quality and conditions of the lumber to be used. In this respect the present specifications are very indefinite and inadequate.

3. For the preservative treatment of the wood I have specified, primarily, the plain creosoting process, which is conceded by the great majority of engineers and experts to be the most satisfactory and efficient wood preserving process now known. It has been in use for a long period of time and its efficiency has been thus established. Most of the newer processes of treating paving blocks have creosote oil as their basis, but use other substances with it. Even if some of these new processes shall in time be demonstrated to be equal, or even superior, to the plain creosoting process, they have not yet established such a claim, and it would be unwise for the City to rely upon them except under such restrictions as will safeguard its interests. Such a safeguard is provided in these new specifications, which permit the use of processes other than the standard creosoting process, upon the condition that the wood shall contain, after treatment, not less than ten pounds of standard creosote oil per cubic foot of wood. These specifications will not, therefore, shut out from competition those who wish to use any of these new processes of which creosote oil is the basis. The present specifications practically exclude all contractors who do not or cannot use the so-called Creo-resinate Process, and tend to give that process a monopoly. The proposed specifications are full and definite as to the preservative treatment of the wood, and, if enforced, will insure good work.

4. The most serious objection to a good treated wood block pavement, particularly where resin is

used in the process of treatment, is the excessive slipperiness of the pavement, it being in this respect, as now constructed in this City, more objectionable than any other smooth pavement. This may be largely remedied by chamfering the edges or corners of the paving blocks, thus making shallow grooves in the pavement which will afford foothold for horses. The new specifications require that this or some other equally good device shall be used where the street grade exceeds three per cent. In this connection it is worthy of note that in Boston, where one of the earliest examples of the creo-resinate block pavement was constructed, it was, I am informed, found to be so slippery that it was taken up about a year since and relaid with grooves to afford foothold for the horses.

Wood-block pavements laid in accordance with these proposed specifications should be durable and satisfactory, and equal in every respect to the best sheet asphalt pavement.

5. The depth of the blocks is left blank in the specifications so that this depth can be varied with the quantity and character of the travel on the street to be paved, as more fully stated in my letter to you of March 15th last.

These wood-block specifications are intended to be a part of the general paving specifications for the Borough, and should be attached to those already handed to you. The sections are numbered to follow Section 79 of the previous lot, and the sections there numbered 80 and 81 applying to all pavements, should be re-numbered 87 and 88.

Yours very respectfully,

S. WHINERY.  
Consulting Engineer."



*Q.* Mr. Whinery, did you write a further report to the Borough President on May 19th, 1905?

*A.* Yes, sir.

*Q.* Have you a copy of that report in your letter book?

*A.* I have.

*Q.* Will you read it to us, please, Mr. Whinery, and tell us at what page in the letter book it appears?

*A.* Page 41, dated May 19th, 1905, Hon. John F. Ahearn, President Borough of Manhattan, City Hall, New York.

"ASPHALT PAVEMENT,  
WEST THIRTY-FIRST STREET.

DEAR SIR: In reply to yours of the 10th inst., enclosing a letter addressed to you by Mr. Noah Palmer (returned herewith):

The asphalt pavement on Thirty-first street between Ninth and Tenth avenues was laid by the Sicilian Asphalt Paving Co. in 1897 under a fifteen-year guarantee. The foundation was old paving blocks relaid.

A personal examination of this pavement shows that it is in rather bad condition from Tenth avenue for about 350 feet easterly. A hole near Tenth avenue has been filled with paving blocks, and there are two open pipe cuts opposite No. 443. Several burned places were noticed. The pavement is in bad surface and the asphalt is shifted and shattered in the manner characteristic of defective foundation. The easterly half of the pavement is in very good condition.

The bitumen in the pavement is asphalt of apparently good quality, but the surface mixture was not properly compounded, causing it to "shift" more than it should.

The bad condition of the westerly part of the pavement is attributable not so much to the poor

quality of the asphalt surface as to the defective character of the foundation. Evidently the ground upon which the old paving blocks were relaid was soft, and has allowed the foundation to settle and yield under the travel, causing the yielding and disintegration of the asphalt surface. Toward the eastern end of the pavement the ground is higher and has afforded a better support to the old stone foundation, and while some defects caused by yielding foundation are noticeable, the pavement is in very good condition.

This pavement illustrates very well the folly of using old stone blocks reset, without filling the joints with cement mortar, in the manner I have recommended.

The pavement should be repaired by the contractor in accordance with his guaranty; but no repairs that do not remedy the defective foundation are likely to be satisfactory or permanent.

Yours very respectfully,

S. WHINERY,  
Consulting Engineer."

*Q.* Did you write any other report on that same date, Mr. Whinery?

*A.* Yes, that in on May 19th.

*Q.* Is this that letter, Mr. Whinery?

*A.* It is.

The letter was admitted in evidence and marked "Exhibit No. 128, April 26th, 1907, C. B."

Commissioner Mitchel then read Exhibit No. 128, as follows:

May 19, 1905.

Hon. JOHN F. AHEARN,

President Borough of Manhattan,  
City Hall, New York.

DEAR SIR:

I note that it is contemplated to pave lower Broadway and other streets of heavy travel with wood-block pavement, in the near future.

Permit me to suggest that before further work of this character is advertised for proposals the specifications for wood-block pavement now in force in the Borough should be revised.

These specifications are incomplete and indefinite. Some of their requirements are unnecessary, and tend to restrict competition and to increase unnecessarily the cost of the work, while in other particulars they permit faulty and unsatisfactory work.

I have, in previous communications, called attention to some of these matters, and have submitted a set of specifications which I believe would not only secure the proper quality of work, but would tend to decrease its cost. If for any reason it is not thought best to adopt these, certain changes in, and additions to the present specifications should be made before any further work is put under contract.

Yours very respectfully,

S. WHINERY,  
Consulting Engineer."

This exhibit is stamped, "Received and referred to Mr. Scannell, May 23d, 1905, for immediate report, William Dalton, Commissioner of Public Works."

*Q.* Mr. Whinery, were those changes which you suggested in your specifications or in that letter made before the contracts for the paving of lower Broadway were let?

*A.* I think the provision for chamfered corners of the blocks was written in, and I think also that the specifications were changed to permit the use of some other kinds of wood than long leaved yellow pine.

*Q.* Were those the only changes which you recommended which were made?

*A.* No, those are not the only ones, but they were some of them.

*Q.* Are those the only ones which you recommended which were made?

*A.* I think so, yes, sir.

*Q.* Mr. Whinery, are the wood-blocks on lower Broadway chamfered now?

*A.* No, sir.

*Q.* Then, if that suggestion was adopted in the specifications, it was not enforced, was it?

*A.* No, sir.

*Q.* Did you render another report or letter on June 3d, 1905, addressed to the Borough President?

*A.* Yes, there are two or three, I believe, on that date.

*Q.* Well, did you write him one on that date on the subject of the wood-block pavements or wood-blocks?

*A.* I don't think so, sir. I don't find it here.

*Q.* Well, on what subjects did you write him reports on that date?

*A.* Why, there is a very short letter here telling him in accordance with his suggestion I have written to the contractors asking for certain information, which was a matter of form.

*Q.* Well, did you make any important criticisms or recommendations on that date?

*A.* No, I do not find so.

*Q.* What was the next date on which you did write him a report of any importance?

*A.* The correspondence for the next few days relates to a matter of form. In a conversation I had suggested to

the President that we require the contractors to give us a full account of the materials they were using, especially the asphalt contractors, and I wrote each of the asphalt paving contractors. I had some replies and these were transmitted. There are merely these letters of transmittal and that sort of thing. There is a letter on June 9th relating to asphalt blocks; is that what you refer to?

*Q.* (Handing paper.) Is this the letter?

*A.* Yes, sir.

The letter was admitted in evidence and marked "Exhibit No. 129, April 26th, 1907, C. B."

Commissioner MITCHEL—Exhibit No. 129 is as follows:

"June 9, 1905.

HON. JOHN F. AHEARN,

President Borough of Manhattan,  
City Hall, New York.

DEAR SIR:

The Harlem Contracting Co. has not yet begun the delivery of asphalt paving blocks on Park avenue, Thirty-second to Thirty-fourth streets, and I have not therefore had opportunity to examine the blocks. That company has, however, left a sample block at my office, which, from casual inspection, seems to be good.

Inasmuch as this block is a new product, none of which has yet been used in this city or elsewhere, I recommend that it be submitted to the same tests as were applied to the new blocks supplied by the Barber Asphalt Paving Co. some time since, and I respectfully ask authority to have such tests made at Stevens Institute, Hoboken; the cost will be fifteen dollars.

Yours very respectfully,

S. WHINERY,  
Consulting Engineer."

*Q.* What was the next important report or recommendation which you made to the Borough President, Mr. Whinery? Did you make a report on June 10th?

*A.* No, sir, I do not find one. There is a letter on June 9th of no importance particularly. I merely asked authority to have some apparatus made for the use of the laboratory. The next letter apparently was on June 12th.

*Q.* At what page in your letter book does that appear?

*A.* Page 55, subject Hydraulic Concrete, Street Foundations.

*Q.* Will you read us that letter, please, Mr. Whinery?

*A.* (Reading)—

"June 12th, 1905.

HON. JOHN F. AHEARN,

President Borough of Manhattan,  
City Hall, New York.

DEAR SIR: Hydraulic Concrete, Street Foundations:

My observations show some defects in the making and placing of hydraulic concrete for paving foundations, to which I desire to call attention:

1. Very frequently the crushed stone and sand are delivered directly upon the earth grade of the street, and not upon flooring of plank, as required by the specifications. The objection to this practice is, that when these materials are not placed upon a plank floor, more or less earth is shoveled up from the street with the materials, and mixed with the concrete, thus injuring its quality.

2. Not enough care is taken to bring the sub-grade to the true and proper grade before the concrete is placed thereon. This makes the concrete of irregular thickness on the street, and frequently results in it being of less thickness in places than the specifications call for.

3. Where the concrete is mixed by machines that are supposed to automatically feed the materials in

the proper ratios, I have observed that in some cases the concrete appears not to have the ratio of cement called for by the specifications. The inspectors on the street should be instructed to watch this matter, and to make occasional tests of the quantities of stone, sand and cement that actually go into the concrete. Methods of making such tests are described in a memorandum attached hereto, and I recommend that each inspector be given a copy of this memorandum and directed to test the machines and to see that they are adjusted to give the proper ratios of materials, and maintained in that condition.

4. In hand mixing of concrete, the specifications require (Section 35): 'The sand and cement shall be mixed dry, then made into mortar by the addition of water, when the broken stone shall be added and the whole mass thoroughly mixed.'

This procedure is not usually followed: The sand and cement are generally mixed dry and the stone added before any water is applied. Good concrete can be made either way, but nearly all engineers and authorities agree that the sand and cement should be mixed into mortar before the stone is added, as the specifications require. My own experience has been that the mixing can be done more economically by this approved method, so that no hardship is imposed upon the contractor.

5. Hand-made concrete is often not mixed with sufficient thoroughness—the materials not being turned often enough by the shovels.

I respectfully recommend that the attention of the Chief Engineer be called to these matters.

Yours very respectfully,

S. WHINERY,  
Consulting Engineer.

Enclosure."

*Q.* Did you submit with that letter a memorandum of any kind, Mr. Whinery?

*A.* Yes, sir, a memorandum of the methods by which these concrete mixing machines may be tested, two different methods.

*Q.* That was all that the memorandum referred to?

*A.* Yes, sir.

*Q.* Did you write a further report later in the month of June to the Borough President?

*A.* On what subject? There are several. The next one is dated on the same date, June 10th.

*Q.* On what subject is it?

*A.* On the composition of asphalt paving blocks.

*Q.* Will you read that, Mr. Whinery?

*A.* (Reading)—

“June 10th, 1905.

HON. JOHN F. AHEARN,

President Borough of Manhattan,

City Hall, New York.

DEAR SIR—Composition of asphalt Paving Blocks.

I beg to transmit herewith a letter received Saturday from the Barber Asphalt Paving Co. in reply to letters from me, heretofore referred to, asking for the composition of the asphalt paving blocks used in the work of that company in this Borough.

You will note that the company declines to inform me of the locality where the asphalt used in these blocks is mixed, and to give fully to me other information in relation to it that my original letter called for.

The principal reason given for declining to supply this information is that the specifications for the work do not require them to do so.

A careful examination of the notice to bidders, form of proposal, the contract, and the specifications, leads me to the conclusion that the right of the city to demand this



information is not clearly and distinctly set out in these documents.

It may be reasonably inferred from the wording of section 12 of the notice to the bidder, that the city has the right to know where the asphalt it is proposed to use is mixed, in order that the engineer may know whether it is or is not a variety that has never been used in pavements in the United States, but that right is not distinctly so stated.

Sections C, F, G, and O of the contract stipulate that the engineer shall inspect and accept or reject the materials furnished, that he shall at all times have free access to the works, laboratories and refineries of the contractor and may take such samples as he may deem necessary. Sections 2, 41 and 42 of the specifications provide that the engineer may reject materials not in accordance with the specifications; that the blocks furnished may be subjected to various tests, and that he "shall further have the right to make tests and examinations at the contractor's works," etc.; it is, however, nowhere provided that the contractor shall give the city or its agents the specific information which the contractor has declined to give.

Notwithstanding this omission in the contract and specifications, it is undoubtedly true that the City is equitably entitled to the fullest information regarding the several materials contracted for by it, in order that it may determine their suitability for the purpose or use intended. If the contractor refuses to give such full information the City may rightfully reject these materials.

Furthermore, the City or its agents are authorized to visit and inspect any material at the 'Works' of the contractor (Section 42, Specifications), and under the word 'Works' is doubtless included the mines or localities from which these materials are obtained, and the contractor is bound to supply all necessary facilities for making such inspection. This would, of course, involve the giving by

the contractor of such information as would disclose the location of the mine.

In the revised specifications submitted to you through the Chief Engineer on February 28th last, I distinctly provided that contractors must supply information of this character. (See Section 3.)

Yours very respectfully,

S. WHINERY,  
Consulting Engineer."

*Q.* Mr. Whinery, did you also write a report or letter on June 20th, 1905?

*A.* Yes, sir.

*Q.* (Handing paper.) Is this the letter?

*A.* It is.

The letter was admitted in evidence and marked "Exhibit No. 131, April 26th, 1907, C. B."

Commissioner MITCHEL—Exhibit No. 131, is as follows:

"June 20, 1905.

Hon. JOHN F. AHEARN,

President Borough of Manhattan,  
City Hall, New York.

#### THERMOMETERS FOR INSPECTORS.

DEAR SIR—I find that some of the inspectors on asphalt pavement are not supplied with thermometers for testing the temperature of the paving mixture delivered on the street. I regard this as an important matter and suggest that the Chief Engineer be instructed to supply all these inspectors with suitable thermometers for the purpose.

I have found in a number of instances that the surface mixture was being allowed to become too cold before the rolling was completed, and when in

this condition it is not possible to properly compress the pavement.

Yours very respectfully,

S. WHINERY,  
Consulting Engineer."

Q. Did you write another report to the Borough President on or about June 21st, 1905?

A. Yes, sir.

Q. Is this the letter or report?

A. Yes, sir, that is the one.

The letter was admitted in evidence and marked "Exhibit No. 132, April 26th, 1907, C. B."

Commissioner Mitchel read Exhibit No. 132, as follows

"June 21, 1905.

Hon. JOHN F. AHEARN,

President Borough of Manhattan,

City Hall, New York.

DEAR SIR—A very considerable number of the wood paving blocks now being laid on John street, Nassau to Broadway, are not of long-leaved yellow pine timber, nor is all the timber of the quality required by the specifications. In my communication of April 10th last ('Inspection of wood paving blocks') I called attention to this matter.

The only practicable way to insure compliance with the specifications is to have the lumber from which the blocks are cut inspected before it is subjected to the preservative treatment, and I strongly recommend that this shall be done in all future work.

Yours very respectfully,

S. W. WHINERY,  
Consulting Engineer."

*Q.* Did you also write a report to the Borough President on or about June 22d, 1905?

*A.* Yes, sir.

*Q.* On what page of your letter book does it appear?

*A.* Page 79, dated June 22d, 1905.

*Q.* Mr. Whinery, will you read us that report?

*A.* (Reading.)

June 22, 1905.

Hon. JOHN F. AHEARN,

President Borough of Manhattan,  
City Hall, New York.

### SETTING ASPHALT AND WOOD BLOCKS.

DEAR SIR—I beg to call attention to some unsatisfactory features in the present practice, in this Borough, of setting asphalt and wood paving blocks on the street, and to suggest some changes in that practice, which will, I think, improve the quality of the work done. The changes suggested all come within the reasonable requirements of the specifications.

### MORTAR-BED.

In preparing the mortar for the mortar-bed on which the blocks are set, it is the present custom to use so small a quantity of water in mixing the mortar that the product is a friable powder rather than a mortar. This is done because it is considered more difficult to spread and properly grade the mortar-bed when the mixture is in the condition of ordinary mortar. I do not consider this reason a valid one; and have no hesitation in saying that the mortar, if properly tempered, can be spread and graded without serious difficulty or increased expense.

I therefore recommend that the Chief Engineer shall require in all future work that the sand and cement be mixed into a true mortar of the proper consistency before being placed on the concrete foundation.

## SETTING THE BLOCKS.

It is the present custom to set the blocks in place rather hastily and carelessly, and to later go over them, removing defective blocks, pressing the blocks more closely together with levers, etc., and to ram the whole surface of the pavement to bring the blocks to the proper surface and to seat them firmly in the mortar. These operations are not infrequently deferred until the mortar-bed has begun to set and the seating of the blocks in the mortar-bed is often thus disturbed.

I recommend that the blocks shall be properly inspected and assorted before they are taken to the block-layers (as the specifications require), so that it will not be necessary to remove so many of these blocks after they are set. That the blocks be set with more care, each block being set as closely as possible to its neighbors, and pressed into the mortar to a firm seat and to the proper surface elevation, using, if necessary, paving hammers for the purpose; and that if ramming be used at all, it shall closely follow the block-setting, before the mortar shall have begun to harden.

## TRIMMING.

Frequently trimming (or the completion of the courses against the curbs, around manholes, etc.), is allowed to fall far behind the body of the block-laying. This is unnecessary and wrong and I recommend that this trimming shall be kept close along with the block-laying.

There are good and valid objections to the present practice, and reasons for the changes recommended. You probably do not care to be burdened with details, and I have omitted them; but will be glad to take them up with either yourself or the Chief Engineer, if thought desirable.

Yours very respectfully,

S. WHINERY,  
Consulting Engineer."

Q. Mr. Whinery, did you also write a report to the Borough President on or about June 26th, 1905?

A. Yes, sir.

Q. On what subject was that?

A. Asphalt surface mixtures.

Q. (Handing paper.) Is this that report?

A. Yes, sir.

The paper was admitted in evidence and marked  
"Exhibit No. 133, April 26th, 1907, C. B."

Commissioner read Exhibit No. 133, as follows:

"June 26, 1905.

HON. JOHN F. AHEARN,

President Borough of Manhattan,  
City Hall, New York.

#### ASPHALT SURFACE MIXTURES.

DEAR SIR—The composition of some of the asphalt surface mixtures that are being laid upon the streets of this Borough are, in my opinion, defective and unsatisfactory. This is true, for instance, of the pavement now being laid upon Park Row, opposite the City Hall.

The question of the advisability and the legal right of the City, under the present contract and specifications, to direct a contractor to change the mixture proposed or laid by him, is an important one, and seems to be involved in so much doubt, that I have hesitated to do more than suggest changes of mixture that seemed to me desirable.

In the first place the specifications are lax and indefinite and allow the contractor great latitude in the composition of the mixtures. In the second place, it has seemed to me, under the five-year guaranty clause of the contract, to be questionable whether the City can assume to dictate the mixture and at the

same time hold the contractor responsible for results. If he is to be held responsible for the quality and endurance of the pavement, he may, not unreasonably, claim that he must be left free to compound and lay the pavement mixture, in the way which, in his judgment, will produce a pavement that will comply with the guaranty. If the city assumes to dictate the mixture, he may, in case of trouble, say that he is not to blame for defects and lack of endurance in a pavement which the city compelled him to construct in a manner not in accordance with his best judgment. Of course, the City has the right to compel him to keep within the limits prescribed by the specifications, but whether it may legally dictate what he shall do within those limits, is, considering the terms of the guaranty, another question.

In so far as the contractor may be persuaded to voluntarily modify these mixtures, I assume that the City will be on safe ground, and I shall not hesitate to make unofficial suggestions where I think they will tend to produce a better pavement. I think it would be well to have, from the legal department of the City, an opinion upon this point before taking any action toward compelling contractors to conform their pavement mixtures to the ideas of your engineers.

Yours very respectfully,

S. WHINERY,  
Consulting Engineer."

Q. Did you write any other report to the President of the Borough on the same day, Mr. Whinery?

A. Yes, sir.

Q. (Handing paper.) Is this it?

A. It is.

The letter was admitted in evidence and marked "Exhibit No. 134, April 26th, 1907, C. B."

Commissioner MITCHEL read Exhibit No. 134,  
as follows:

June 26, 1905.

Hon. JOHN F. AHEARN,  
President Borough of Manhattan,  
City Hall, New York.

DEAR SIR—I wish to call attention to the careless and improper manner in which a number of contractors are relaying the old block stone pavement to be used for the foundation of asphalt pavement.

This old stone foundation is, as I have previously represented to you, unsuitable and inadequate as a foundation for an asphalt pavement even where laid with care unless the joints are filled with cement granite. As it is now being laid on a number of streets the asphalt surface cannot possibly prove satisfactory or durable.

I have just returned from Eighteenth street (Avenue C to Irving place), and a description of which I observed there will apply to other streets also.

1. The stones are loosely and carelessly set on the soft and uncompacted soil. Stones of various thickness are set in the same course, resulting in many joints of greater width than the specifications permit.

2. The tops of the stones are not set to the true grade and contour of the street. They seem to be set without grade stakes or templates.

3. After the stones are set, the earth excavated from the street is shoveled upon them to fill the joints. This earth, when wet or damp, affords no lateral support to the stones, and where travel is allowed over the stone after being set, as it should be, not a few of the stones are moved or canted over from the vertical position.



The specifications relating to the preparation of this old stone foundation (Section 8) are very brief and explicit, and under them good and satisfactory work can hardly be expected; but so far as they go they should be rigidly enforced.

Yours very respectfully,

S. WHINERY,  
Consulting Engineer."

*Q.* Did you write a report of letter to the Borough President on July 13th, 1905?

*A.* Yes, sir.

*Q.* (Handing paper.) Is this it?

*A.* Yes, sir.

The letter was admitted in evidence and marked "Exhibit No. 135, April 26th, 1907, C. B."

Commissioner MITCHEL read Exhibit No. 135, as follows:

"July 13th, 1905.

Hon. JOHN F. AHEARN,

President Borough of Manhattan,  
City Hall, New York.

#### ASPHALT REPAIR WORK.

DEAR SIR—Complying with the request of your communication of the 8th inst. (copy attached), I have conferred with Mr. Martin, have visited with him the repair work in progress on West Broadway from Dey street northward, have inspected this work, and beg to report as follows:

This work is being done in a generally inferior, careless, and slovenly manner. Patches which Mr. Martin assures me were put in very recently this season, are already disintegrated, and none of the recent work is of the proper quality. I have visited the street several times, but have not been able to

find the work of laying asphalt actually in progress at the time, and am not therefore able to determine just what is the matter with the material and the manner of laying it.

I have asked Mr. Martin to take up a sample of the recently laid repairs and submit it to the chemist for analysis, and when the report is received I will be able to determine whether the material or the mixture is of inferior or improper quality.

The appearance of the defective patches indicates that either the mixture is not properly made, or that the contractor is very careless in laying it. The defects may be, and I think are largely due to insufficient compression of the material, caused by laying the mixture at too low a temperature, or by insufficient rolling. I shall pursue the matter further and report later.

Other facts to which I would call your attention are the following:

1. Cuts into the old pavement are made too long in advance of laying the patches, thus greatly interfering with travel. Some of these cuts have stood open at least two days before the surface was relaid.

2. The old material from the cuts is thrown out in piles on the adjoining pavement, and allowed to remain there for several days, not only obstructing travel, but being scattered and rolled out upon the pavement by travel.

3. The cuts are often not properly made and properly cleaned out. Old and worthless binder is not removed and old material and debris is allowed to remain in the cuts and is covered up by the new material.

4. The repair work is not properly joined to the old pavement, nor are the newly laid patches properly graded or brought to a true surface.

5. The contractor does not exercise proper care to keep the street as free as practicable for travel. Piles of wood, tools, etc., are placed and allowed to remain on the street an unnecessarily long time.

Altogether this is the poorest and most unsatisfactory asphalt work I have seen in the city. A great part of the repairs put in are practically worthless and should not be paid for by the City, and no more such inferior work should be permitted.

Yours very respectfully,

S. WHINERY,  
Consulting Engineer."

*Q.* Mr. Whinery, can you say what company it was which was making the repairs in this street?

*A.* I think it was the Uvalde Company, sir.

*Q.* Was that under one of the contracts of maintenance let after the contract of guaranty had expired?

*A.* I so understood it.

*Q.* Did you write any other report to the President of the Borough on July 13th in the same connection?

*A.* No; there is a letter to Mr. Wisner Martin on that date.

*Q.* The letter was addressed to Mr. Wisner Martin instead of the Borough President, is that it?

*A.* It was addressed to Mr. Wisner Martin, yes.

*Q.* (Handing paper.) Is this the letter, Mr. Whinery?

*A.* Yes, sir.

The letter was admitted in evidence and marked "Exhibit No. 136, April 26th, 1907, C. B."

Commissioner Mitchel read Exhibit No. 136, as follows:

"July 13, 1905.

MR. WISNER MARTIN,  
Principal Asst. Eng. Highway Dept.,  
Park Row Bldg., N. Y.

# REPAIR WORK ON WEST BROADWAY.

DEAR SIR—Regarding the defective asphalt pavement repair work on West Broadway which we visited on the 11th inst., I think it important to have a more complete laboratory report upon the material used there. Will you please have the inspector cut out, from the spot we examined, where the roller cracks appeared, a sample at least four inches square (being careful not to break or disintegrate the sample), and deliver it to the chemist, marked "Sample W. 7", and will you kindly direct the chemist to examine and report upon it at his earliest convenience? He should determine:

1. The specific gravity of the sample.

2. Extract the bitumen by C. S<sub>2</sub>.

3. Submit this bitumen to the usual examination, determining the percentages soluble in naphtha and in carbon tetra-chloride, and the percentage of fixed carbon. Also retain some of the bitumen for my examination.

4. Submit the mineral residue from the pavement to the usual sieve tests, and hold it for me to see.

Yours very truly,

S. WHINERY,  
Cons. Eng."

Q. Did you write a further report to the President of the Borough on July 18th, 1905, Mr. Whinery?

A. On what subject?

Q. Broadway.

A. Yes; this is in regard to the block paving on Broadway at 119th street. It is not the same subject.

Q. (Handing paper.) Is this the letter?

A. Yes.

The letter was admitted in evidence and marked "Exhibit No. 137, April 26th, 1907, C. B."

Commissioner Mitchel read Exhibit No. 137, as follows:

"July 18, 1905.

HON. JOHN F. AHEARN,

Pres. Borough of Manhattan,  
City Hall, N. Y.

#### ASPHALT BLOCK PAVEMENT.

Broadway, 119th St. to Manhattan St.

DEAR SIR—I made a further examination of this pavement a few days since. The recent very hot weather has developed defects in the paving blocks which could not have been discovered except through the action of the heat.

I respectfully recommend that the pavement be not accepted and paid for, at present. In fact, I recommend the same action in the case of all the block pavements laid this season, in which the Barber block has been used.

I shall watch these pavements carefully and will later make you a full report upon them.

Yours respectfully,

S. WHINERY,  
Consulting Engineer."

Q. Mr. Whinery, is this the case which was referred to before in one of the former reports?

A. Yes, the same thing.

Q. Is this the pavement which was subsequently taken up?

A. Not subsequently to this letter; it is the pavement I spoke of as having been partly taken up; that is, about a block and a half of it.

Q. In this letter dated July 18th, 1905, you recommend that the pavement be not paid for. Was anything done to improve the condition of that pavement after the making of this report?

A. Yes; they repaired it in places and took up some blocks and put in new ones.

Q. Was it repaired so as to be satisfactory to you?

A. No, sir.

Q. Was it paid for before it was made satisfactory to you?

A. I don't know as to that; I don't know when it was paid for. There was some further correspondence, and I recommended that as the pavement was not hopelessly bad, and as it would give considerable service to the city, that an equitable way of settling for it would be to have the contractor increase his bond so as to cover its reconstruction, if necessary, during the five-year period.

Q. Do you know whether that was done?

A. I think not. The President, in conversation or in a letter to me, said that it was not practicable or possible—I do not remember the exact terms.

Q. As far as you know, then, nothing was done subsequent to this report of July 18th, 1905?

A. Well, there may be further correspondence about it; I do not know. We may come to further correspondence about it.

Q. But otherwise you do not know that anything was done subsequent to this time, do you?

A. I do not.

Q. Will you examine your notes Mr. Whinery, and see whether there was any further correspondence between you and the Borough President on that subject?

A. Yes, sir; there appears to be a long report on the subject, dated August 25th, which I had forgotten.

Q. Now, without reading that full report, Mr. Whinery, can you state the conclusions—is this the report which you wrote on that day (handing paper)?

A. Yes, sir.

Q. Will you look at the last paragraph of that report and tell me whether that sums up your conclusions?

A. Yes, sir; it does.

The report was admitted in evidence and marked "Exhibit No. 138, April 26th, 1907, C. B."

Commissioner MITCHEL—The report is dated August 25th, 1905, addressed to John F. Ahearn, President of the Borough of Manhattan, City Hall, New York. It is a report consisting of nine pages, of which the last paragraph is as follows:

"I respectfully recommend that the contractor be required, before the acceptance of the pavement, to give such additional maintenance bond as will safeguard the City against the possible failure of the pavement. This bond should be sufficient to cover not only ordinary maintenance but the taking up and replacing with new block those now on the street, as it seems almost certain that the pavement will have to be reconstructed before the end of the guaranty period."

Q. Can you say, Mr. Whinery, whether or not that recommendation was complied with?

A. I do not know whether it was or not.

Q. Is that the last you know of that particular work?

A. Well, no; there is a letter on August 29th in reference to it—a very short one.

Q. Will you give us the contents of that letter?

A. (Reading)—

"August 29, '05.

Hon. JOHN F. AHEARN,  
Pres. Borough of Manhattan,  
City Hall, New York.

ASPHALT BLOCK PAVEMENT ON BROADWAY,  
119th to Manhattan St.

DEAR SIR—Referring to our conversation this afternoon, as it appears that the course recommended by me in my letter of the 25th inst. is not practicable, I cannot recommend the acceptance of the pavement.

Yours very respectfully,

S. WHINERY,  
Consulting Engineer."

Q. Is that the last that you know of this transaction?

A. That, I think, is the last. I do not recall that there is anything further relating to it.

Q. You do not know whether the pavement was accepted or not?

A. I do not.

Q. Or paid for?

A. I do not.

Q. Did you write a report to the President of the Borough on August 3rd, 1905?

A. Yes, sir.

Q. Will you give us the contents of that letter or report?

A. (Reading)—

"Aug. 3, 1905.

Hon. JOHN F. AHEARN,  
Pres. Borough of Manhattan,  
City Hall, N. Y.

DEAR SIR—I have before me the results of the analysis of the sample of asphalt pavement from the repair work



of the Uvalde Asphalt Paving Co. on West Broadway, referred to in my communication of July 13th. I attach a copy of the Chemist's report.

The specific gravity of the sample shows, as I anticipated, that the pavement was not properly compressed by rolling. This may have resulted either from laying the material at too low a temperature or from careless and insufficient rolling. The analysis confirms my statement that the work was carelessly and improperly done.

It shows that the sample contained sufficient asphalt of good quality, but the sand used in the mixture is too coarse and is improperly graded. Opposite the Chemist's figures showing the sieve tests of the sand, I have placed, in red figures, the proportions I regard as ideal. Good pavement can be made with sand that does not comply strictly with this ideal, but so wide a variation as is here shown cannot be otherwise than objectionable.

Since my communication of July 13th, and up to July 25th, I visited the work on this street a number of times and each time found abundant evidence of careless and improper work, and reported the same verbally to Commissioner Dalton during your absence.

Yours very respectfully,

S. WHINERY,  
Consulting Engineer."

Q. Mr. Whinery, did you also write a report to the Borough President on or about September 14th, 1905?

A. Yes, sir; a short letter on that date.

Q. Will you give us the contents of that letter, please?

A. (Reading)—

"September 14, 1905.

HON. JOHN F. AHEARN,

Pres. Borough of Manhattan,  
City Hall, New York.

DEAR SIR—The asphalt surface mixture which I have observed being laid in the last few days by the Asphalt

Construction Co. seemed to me to be made of California Residual Pitch. I visited the plant of that company yesterday and found that they were using more or less of this material. The superintendent of the plant admitted that they are at present using for their asphaltic cement a mixture of one-half Bermudez Asphalt and one-half California Oil Asphalt.

The only way in which this matter can be properly controlled and complete information obtained as to what material is being used is to keep an intelligent inspector constantly at the plant, in accordance with my previous recommendation.

Yours very respectfully,

S. WHINERY,  
Consulting Engineer."

*Q.* Mr. Whinery, did you also write a report on or about October 16th, 1905?

*A.* Yes, sir.

*Q.* Will you give us the contents of that report?

*A.* (Reading.)

"Oct. 16, 1905.

Hon. JOHN F. AHEARN,  
Pres. Borough of Manhattan,  
City Hall, New York.

DEAR SIR—I am compelled to again call your attention to the failure of inspectors to notify me when work is in progress on the streets.

As you are aware, the inspectors are provided with blank postal card reports which it was made their duty to fill out and send to me daily advising me of what work would be in progress under their charge on the succeeding day.

Copies of the formal notification to the contractor to begin work upon a certain street are sent to me by the

Commissioner of Public Works regularly and promptly. It cannot, however, be expected that I will visit these contractors' work daily to ascertain when the work is actually in progress and inspect it.

The postal card report from inspectors was devised to keep me informed when actual work would be in progress, so that I could visit and inspect the work without needless waste of time. I particularly wish to visit each street when asphalt laying is going on.

Since the first day of September I have received but five postal card notices of the laying of asphalt surface. I feel certain that since that date the work on a considerable number of streets has been done, but it has not been inspected by me because I have had no notice when it was to be in progress.

Yours very truly,

S. WHINERY,  
Consulting Engineer."

*Q.* Mr. Whinery, who had advised that postal card system of notices by the inspector?

*A.* I had. I found something was necessary. These notices to begin work on the street were issued and copies were always sent me faithfully, but often the contractor would not begin work for a week or two or three weeks after that time, and then it was only certain portions of the work that I cared to see, so I got up this postal card blank, which was approved, and which was to be supplied to the inspectors, and they were each night to fill out one and send it to me, saying what work would be in progress the next day, or, if no work was to be in progress, they did not send the report.

*Q.* For how long a period of time was that system supposed to be in force?

*A.* Why, I do not remember distinctly, but I think it was put in force about the 1st of July.

*Q.* And supposed to remain in force how long?

A. Well, until the end of the season's work.

Q. Which was when, Mr. Whinery?

A. About the middle of November I think they closed.

Q. During that time can you say how many cards you received from the inspectors?

A. Why, certainly less than a hundred.

Q. Less than a hundred?

A. Yes.

Q. Was it to be expected that you would receive as many as that, or more, or less?

A. I should have received four or five hundred, probably, in that time. Work was going on in a great number of streets, and every day I should have received eight or ten a day.

Q. Does that mean the inspectors failed to live up to the system which you had established?

A. Certainly.

Q. Were you called upon in the course of your duties as consulting engineer to make a study of the system of inspection employed by the Bureau?

A. I was not.

Q. Was that the only way in which you came in contact with the system of inspection?

A. Only as I saw the progress of the work on the street.

Q. I mean in respect of that particular card system which you attempted to establish?

A. Yes, and what I saw of them on the street.

Q. Can you comment in any way upon what you did see of the inspection on the street?

A. There were a few inspectors who were intelligent, alert and faithful and who tried to do the right thing, unquestionably. My experience was that the great majority of them were not so.

Q. What would you say of the great majority of them, Mr. Whinery?

A. Well, the great majority of them merely allowed

the contractors to do very largely as they pleased—that was my observation.

*Q.* Mr. Whinery, you have testified, have you not, that you drew up and submitted to the Borough President specifications, forms of specifications for all kinds of pavement for use in the Borough?

*A.* Well, not for all kinds, because there are a great many; but for the kinds mentioned therein.

*Q.* Will you enumerate them?

*A.* There were asphalt blocks, asphalt pavement, sheet asphalt pavement, asphalt block pavement, wood block pavement. I do not recall any others, but the specifications show for themselves.

*Q.* Did you submit specifications for granite?

*A.* I think so, but I do not recollect. The specifications will show for themselves.

*Q.* I show you Exhibit 117, which is a copy of the specifications which you testified you submitted to the Borough President, and ask you how many kinds of pavements those cover?

*A.* Well, there are general specifications, of course, for the concrete foundation, which might apply to any pavement, and for making of foundation of all paving blocks. For sheet asphalt pavement, for rock asphalt pavement, for block asphalt pavement, for granite block pavement, and, later, for wooden block pavement.

*Q.* Well, now, Mr. Whinery, of those five classes of pavements for which you submitted specifications, were the specifications for any one class or more submitted by you ever adopted?

*A.* Not as a whole, no, sir. Some things, such as I mentioned, the chamfered edges of blocks and one or two little things of that kind, were incorporated in the specifications.

*Q.* Were any of those recommendations which you considered most essential ever adopted?

*A.* No, sir; they were not.

*Q.* You testified that in the case of the asphalt block on upper Broadway that in one point your recommendation to take up the blocks laid and relay them was followed.

*A.* It was.

*Q.* Can you say whether or not that was the only instance during your employment when an important recommendation made by you was followed?

*A.* Well, I would not like to put it as strong as that.

*Q.* Will you put it in your own words, please?

*A.* Briefly, I may say that to all these recommendations the President acceded and expressed himself as anxious to see them carried out, and in some instances I know he gave instructions to have them carried out. As a matter of fact, in very few instances were they carried out.

Commissioner MITCHEL—I think that is all I have to ask this witness.

Adjourned to April 29th, 1907, at 10.30 A. M.

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NEW YORK, April 29, 1907.

Met pursuant to adjournment.

Present—Commissioners HERTLE and MITCHEL; and Mr. BRUERE and Mr. LITTLETON.

JOHN F. AHEARN, called as a witness, being duly sworn, testified as follows:

By Commissioner MITCHEL:

*Q.* Mr. President, will you please describe in detail the organization of your office and all its Bureaus, outlining the distribution by Bureaus of the functions and duties assigned to you by the Charter?

Mr. LITTLETON—Mr. Commissioners, just before he answers. I have arranged—the President wishes to make a two-paragraph answer, or reason why he does not answer, on the record, and I have arranged for him to submit that reason now and then repeat it in reference to each question, if you do not mind.

The WITNESS—I decline to answer, and give these as my reasons by advice of counsel; I decline to answer these questions, not because there is anything in my office or about my subordinates or me that I wish to conceal from you or from the public; not because I wish to be disrespectful to this Commission; but because this Commission has had five months' time in which to make a detailed investigation of all the affairs of the Borough, the fullest and freest access to all of its books, papers and employes, has had the files and records of the Borough President's office taken away for examination, has employed private accountants for the purpose of making the examination, and has made more than thirty-three reports upon my office to the Mayor, all of which reports show that the office is in good condition; because also the examination now being made by this Commission is one as to the policy of my administration, a duty which was enjoined upon me by my election, and which cannot be taken away by the Commissioners of Accounts nor subjected to their reproof, scrutiny or criticism; because I respectfully challenge the power of this Commission to conduct this examination in the manner and form and upon the subjects in which they are conducting it.

Commissioner MITCHEL—Mr. President, the Commission rules that the grounds assigned are not sufficient for a refusal to answer the question and directs an answer.

The WITNESS—I still decline, for the same reasons as given.

Commissioner MITCHEL—The Commission desires to warn the witness that the refusal to answer

the questions submitted constitutes contempt and that the witness must be proceeded against accordingly.

THE WITNESS—I still decline.

Q. Mr. President, how far in each case do you exercise personal supervision and control over the superintendents of the Bureaus of your office, as to the performance of their duties and functions?

THE WITNESS—I decline to answer the question on the same grounds.

Commissioner MITCHEL—It is stipulated that the same reasons apply for each refusal?

Mr. LITTLETON—Yes, and the same admonition and the same declination each time.

Q. Mr. President, what person in your office has particular charge of the keeping of accounts of expenditures from the various funds on which you as Borough President may draw?

THE WITNESS—I decline to answer for the same reasons.

Q. To what extent do you exercise a personal supervision over such expenditures?

THE WITNESS—I decline to answer for the same reasons.

Q. Who in your office has authority to order the charge of a given pay-roll changed from one fund account to another?

THE WITNESS—I decline to answer for the same reasons given.

Q. How far do you exercise a personal supervision and control over the purchase of supplies and the making of repairs by the Bureau of Public Buildings and Offices?



THE WITNESS—I decline to answer, giving the same reasons.

*Q.* Who in your office passes upon the question whether an excess payment over estimated amount of a given contract shall or shall not be allowed, and to whom is such question referred for final decision?

THE WITNESS—I decline to answer for the same reasons given.

*Q.* Who in your office is responsible for enforcing the compliance by paving companies with the terms of the contract and specifications under which their work is being done, and what steps are taken by your office to enforce the compliance with the terms of such contracts and specifications?

THE WITNESS—I decline to answer for the same reasons.

Commissioner MITCHEL—There are no further questions to ask this witness in view of his refusal to answer.

MARVYN SCUDDER, recalled for further examination, testified as follows:

*Examined by Commissioner MITCHEL:*

*Q.* Mr. Scudder, did you by the direction of the Commission make an examination of the various fund accounts, so-called, in the office of the Borough President?

*A.* I did.

*Q.* What accounts did you find.

*A.* I examined all such accounts as shown in the general ledger at the Commissioner of Public Works office.

*Q.* With what purpose did you make an examination of those funds?

*A.* To find if charges had been made correctly, if deposits had been made correcting the accounts correctly, proper debits and so forth.

*Q.* Will you name the funds that you examined?

*A.* I haven't a list here of all the different accounts I examined, but I should say there were twenty-five at least, all told, that I made an examination of. The principal ones that I examined were the Restoring and Repaving Fund Account; the Street Improvement Account; the Corporate Stock Account for Paving Streets, Borough of Manhattan; the Repairing and Maintaining Asphalt Pavements, Borough of Manhattan, Fund Account—

*Q.* Which is what kind of a fund?

*A.* I do not understand the question.

*Q.* How is that fund raised?

*A.* By selling of bonds.

*Q.* What kind of bonds?

*A.* Revenue bonds.

*Q.* Take the fund for Restoring and Repaving, how is that fund produced?

*A.* The Restoring and Repaving Fund is produced by the deposit of what was called under general heading plumbers, representing not only the plumbers, but householders, and this fund account, which I described in former testimony, was deposited with the cashier and was deposited for the purpose of paying for restorations of plumbers' cuts.

*Q.* Now will you describe the process followed by the Bureau upon the application of a plumber to open the pavement?

*A.* First, the application is made by the plumber; second, permits are issued upon required deposit, deposit sent to City Chamberlain; third, inspections made by City Inspector and turned in as ready for paving; fourth, slip sent to Bureau of Highways for official measurement and for order to be sent to asphalt company for repairs; fifth, bill sent by asphalt company as to completion of work; sixth, inspector sent out to verify bill.

*Q.* Can you say whether that deposit which is made by the plumber is sufficient in all cases to cover the cost of the restoration of the pavement?

A. I can say that I have found no case in which it was not sufficient. There may be cases, but I have not found them, and I have made a very careful investigation. I am told that in some cases that has been so.

Q. Can you say whether in any cases it is more than sufficient to cover cost of restoration of the pavement?

A. I can. In fact in every case that I looked up, the amount was more and usually a great deal more.

Q. How does that come about?

A. I have been informed by the cashier in the Commissioner of Public Works' office and by other clerks in the office that deposits have to be made at a certain amount per square yard of pavement opened, and it varies with the kind of pavement opened.

Q. Take asphalt pavement and describe the process.

A. I have already described the process of making the deposit. The payment has to be made before getting the permit at a certain amount a square yard.

Q. Have you examined any of the bills of the asphalt companies?

A. I have.

Q. As to the rates per square yard?

A. I have.

Q. Can you say whether the rate charged by the Bureau is greater, equal to or less than the rate per square yard charged by the asphalt company?

A. In every instance that I have found it has been greater than the rate charged by the asphalt company.

Q. Do you mean by that there is a surplus per square yard remaining in the Bureau after the payment of the asphalt company's bill?

A. Yes, and to show that more clearly I would say that the fund account itself in the general ledger shows that very clearly by the excess of amounts that have been deposited over the payments made to asphalt companies.

Q. Is it not true that the Bureau exacts payment for a greater number of square yards than the Bureau estimates are likely to be destroyed by the plumber?

A. I should say so.

Q. What is the practice of the Bureau as to refunding any portion of the deposits paid by the plumber, and upon what basis, if any, is such refund made?

A. Refunds are made when the inspector reports—after the inspector reports that a less amount has been opened and repaired——

Q. What do you mean by a less amount?

A. A less amount than originally deposited for.

Q. Well, describe "Amount" a little bit more specifically.

A. By the original amount deposited for, I mean the amount per square yard that is paid for the estimated opening. The difference between that amount deposited and an amount at the same rate per square yard covering the actual pavement opened and later restored is refunded to the plumber on his application only.

Q. Is that refund ever made without the special application of the plumber?

A. Apparently not and not as far as I could find out by careful questioning.

Q. Then the refund that you have described represents the excess amount reckoned in square yards over the number of square yards actually destroyed by the plumber, is that correct?

A. In rate per square yard I would say.

Q. Does the Bureau ever refund the surplus represented by the difference between the actual cost of the restoration of the pavement and the amount of the deposit actually charged the plumber?

A. Apparently not.

Q. What becomes of the surplus represented by the excess of rate per square yard charged by the Bureau?

A. Part of it is kept in the fund and part of it appears to be spent for other purposes than for plumbers' cuts.

Q. Well, then, there are really two kinds of surplus in that fund, are there not?

A. I should say so.

Q. The surplus square yardage for which the plumbers do not demand a refund, is that right?

A. That is right.

Q. And the surplus represented by the excess rate?

A. Yes, sir.

Q. Now did you make an examination of that fund to ascertain?

A. I think that ought to be made a little clearer. I think there are three sorts of surplus there.

Q. Describe them.

A. The surplus representing the excess rate, the surplus representing excess rate at the rate per square yardage, the surplus besides that represents the difference between the price of cost of restoration and the cost of restoration at the rate per square yard, and then a certain amount that has been deducted for other purposes.

Commissioner MITCHEL—Mr. Stenographer will you read that answer to the witness?

(Answer repeated by stenographer.)

The WITNESS—I will strike that answer out. It is not very clear.

Q. Mr. Scudder, if there is a third kind of surplus over the two you have already described, will you tell us what that third kind of surplus is?

A. I thought that would probably be got to later. It is a surplus that is not represented there in the account at the present time. It has been taken out of the account.

Q. Could that surplus arise in any other than the two ways you have already described?

A. No, it could not.

Q. Then there are only two kinds of surplus in that fund, are there not?

A. There are only two kinds of surplus in that fund.

Q. Did you make an examination of that fund to ascertain what charges had been made against it?

A. I did.

Q. What kinds of charges did you find made against that fund?

A. Charges for restoration, charges for refunds, charges for pay-roll.

Q. When you say charges for restoration, just what do you mean?

A. By charges for restoration I mean the payment of the price of pavement to the asphalt companies for the restorations they have made.

Q. When you say refunds, what do you mean?

A. I refer to the refunds formerly spoken of, per square yard over and above the amount of square yardage actually opened and the amount originally deposited for.

Q. When you say pay-roll, charges for pay-roll, what do you mean?

A. I refer to payments made to men, in the employ of the City for work done.

Q. Did you find any charges for restoration which were not properly chargeable against this fund?

A. I might say that the amount per square yard——

Commissioner MITCHEL—Will you repeat the question to the witness, please?

(Question repeated by stenographer.)

Commissioner MITCHEL—You have already defined restorations as payments made to asphalt companies?

A. No.

Q. Did you find any refunds charged against this fund which were not properly chargeable against it?

A. Not so far as I could see.

Q. Did you find any charges made for pay-roll against this fund which were not properly chargeable against it?

A. Yes, sir.

Q. Take the year 1904, Mr. Seudder, and tell us what amount, if any, you found charged to this fund for pay-

roll which was improperly charged, and also tell us what amount you found charged to it which was properly charged.

A. I would say that for the year 1904 a charge which necessarily had to be estimated, owing to the shortness of the time that I had to work on this matter—properly charged \$9,251.29 pay-roll, and improperly charged \$76,009.29.

Q. What was the total pay-roll charged against that fund for the year 1904?

A. The sum of those two, \$85,260.58.

Q. Now you say that you estimated. Will you tell us just how you estimated the amount properly and the amount improperly charged?

A. The pay-rolls charged against Restoring and Repaving Refund Account appear to have been 37, 37½, 36, 29 and 30, the numbers given by the Department to these several pay-rolls. I will take first pay-roll 36, a part of which was charged to Restoring and Repaving Fund Account during the year 1904. I find that that portion of pay-roll 36 for the year charged against Restoring and Repaving Fund during the year 1904 amounts to \$47,188.97.

Q. Will you please tell us what other accounts that pay-roll was charged to during the same year?

A. Pay-roll 36?

Q. Yes.

A. Repaving Streets, several accounts, I cannot mention them all, appropriation accounts for repairing different streets.

Q. Do you mean it was also charged against a corporate stock account and against an appropriation account during the same year?

A. I cannot say as to that off hand. It was charged to other accounts. \$47,188.97 represents only a small proportion of the total of pay-roll 36 for the year.

Q. I show you this pay-roll and ask you if that is a copy of pay-roll 36 which you examined?

A. It is.

Q. Is that one of the original pay-rolls?

A. It is.

The pay-roll was admitted in evidence and marked  
"Exhibit No. 139, April 29, 1907, C. B."

Q. Can you tell us whether this pay-roll is ever charged as a whole against one account and at other times as a whole against another account?

A. It is.

Q. Mr. Scudder, you have testified that of pay-roll 36 \$47,188.97 was improperly charged against Restoring and Repaving Special Fund in 1904, have you not?

A. I have, with this qualification, that I should add a certain small proportion as properly charged against this account.

Q. What proportion of that sum of \$47,188.97 is or was properly chargeable against that fund in that year?

A. That had to be estimated by me. I made careful inquiry and found that a very small proportion of this amount, \$47,188.97, might be properly chargeable to Restoring and Repaving Fund Account. I arrived at my conclusion in this way. Pay-roll 36 apparently covers the payment to laborers used in granite and stone repairing work, which is all done by the City. I find that there is, taking a very conservative amount, 250,000 square yards of granite paving repaired during a year. I find that 7,000 square yards would be a liberal estimate of the amount repaired covering plumbers' cuts. As a matter of fact, during the year 1906 the amount repaired was over 270,000 square yards and the amount covering plumbers' cuts repaired was considerably less than 7,000, so seven-two hundred and fiftieths of this amount would be a very liberal estimate, it seems to me, in order to arrive at the amount that should be properly chargeable out of this \$47,188.97 to the Special Fund Account, Restoring and Paving.

Q. What did you find such amount to be?



A. \$1,301.29, leaving a balance of \$45,887.68 which should not have been charged to this Restoring and Repaving Special Fund Account.

Q. All this applies only to pay-roll No 36, does it not?

A. Yes, only applies to pay-roll No. 36.

Q. Mr. Scudder, will you examine that pay-roll and tell us the kind of work you find there described as done by the various men named on the pay-roll?

A. This pay-roll is a very long one, and I have been over it with Mr. Fischer, the pay-roll clerk in the Paying Department of the Bureau of Highways. This pay-roll consists of gangs, foremen and workmen under them who are employed in repairing granite and stone pavements. I recognize a number of the names on this pay-roll as being those that were on the different pay-rolls 36, and I am told that there is very little change in the character and personnel of this pay-roll. Of course a man might resign and another be put in his place, but it amounts approximately to the same number of men right along, as far as I have been able to ascertain, for the last three years.

Q. What I want you to do is to tell us what titles you find assigned to the various men on that pay-roll.

A. I will take one gang, reading, foreman, paver, paver, laborer, laborer, laborer, laborer, laborer, horse and cart, horse and cart. The others seem to be a duplicate of this.

Q. Mr. Scudder, can you tell us whether laborers and horses and carts are ever used for the restoration of asphalt pavement by the Department?

A. They are not.

Q. Who is it that restores the asphalt pavement?

A. The asphalt companies.

Q. Has the Department anything to do with that other than the inspection of the work.

A. Nothing except the inspection of the work.

Q. Will you look at the last page of that pay-roll and tell us what duties you find there are performed by the men named? Take gang No. A-7.

A. Foreman rigger, foreman rigger, foreman, foreman, assistant foreman, laborer, laborer, laborer.

Q. Do you know what kind of work these men are employed to do?

A. These men are employed in granite and stone work. This is still pay-roll No. 36.

At this point a recess was taken until 2 P. M.

#### AFTER RECESS.

Continuation of the examination of MARVYN SCUDDER:

By Commissioner MITCHELL:

Q. Mr. Scudder, on what information did you base your answer to the last question?

A. I based that information on the statement of Mr. Fischer, the pay-roll clerk; the number of men on that pay-roll are something over 550 and the records were too voluminous for me to go into thoroughly and I took Mr. Fischer's statement and made a cursory examination of the pay-roll, but his statement was that every one on pay-roll 36 was employed in granite and stone openings without qualification.

Q. Now, will you take Exhibit No. 135? Refer again to that particular gang on the last page and tell us whether since the morning session you made a further examination as to the duties performed by these men?

A. These men under A-7—I have made a further examination and I find that some of these men were employed on work that was not connected with granite and stone paving.

Q. What work were they employed on?

A. Part in regard to maintenance of street sides.

Q. Will you pick out a few of the men there who were employed in that kind of work?

A. John J. Drummer, Henry L. Lavery, foreman rigger, Albert P. Tully, painter.

Q. Mr. Scudder, will you look at page No. 2 of that

pay-roll, Exhibit No. 139, and tell us what the title at the top of that page is?

A. "Pay-roll of mechanics and laborers on repairs to street pavements and so forth, under the Borough of Manhattan, Bureau of Highways," and below that "Repairs and Renewals of Pavements and Regrading, 190—" leaving a space for the year.

Q. Will you tell us what is the title on the first page?

A. Restoring and Repaving, Special Fund, 1906.

Q. To what kind of a fund does the title on the second page refer?

A. An appropriation account.

Q. And to what fund does the title on the first page refer?

A. A special fund, the Plumbers' Trust Fund.

Q. Was it against that special fund that this pay-roll was charged?

A. It was.

Q. I show you the pay-roll dated December 15, 1906, and ask you what one that is?

A. This is headed Restoring and Repaving, Special Fund, 1906.

Q. What number is the pay-roll?

A. 36.

Q. How is that title affixed to that pay-roll?

A. On a separate slip pasted at the top of the paper.

Q. Will you look at page 2 and see what fund is there named?

A. Repairs and Renewals of Pavements and Regrading.

Q. What is the character of that, Repairs and Renewals of Pavements and Regrading?

A. That is an appropriation account.

Q. (Handing paper.) I show you pay-roll dated December 8, 1906, and ask you what that is?

A. This is headed Repairs and Renewals of Pavements and Regrading, and is numbered 36.

Q. Are all the pages of that entitled in the same way?

A. They are.

Q. Can you tell us to what account that pay-roll No. 36 is customarily charged?

A. To Repairs and Renewals of Pavements and Re-grading, appropriation account.

Q. Will you look at those pay-rolls and tell us the date on which the first one is charged to the special trust fund?

A. December 8, 1906, is the first one.

Q. Can you tell us whether the rest of the pay-rolls for that year were charged to that special trust fund—pay-roll 36?

A. To the best of my knowledge and belief there were not all charged to Restoring and Repaving, Special Fund Account.

Q. How many more pay-rolls would there be in the year after December 8th?

A. One pay-roll a week, I would say roughly there would be three more, I am not positive, there are only two here, it may have been——

Q. To what fund are those two that are there charged?

A. These three or these two?

Q. You say there are two subsequent to December 8th?

A. To Restoring and Repaving, Special Fund.

Q. Well, then you say or can you not say whether all the pay-rolls No. 36 for the rest of the year were or were not charged to the Special Trust Fund?

A. To the best of my knowledge and belief they were for the rest of the year subsequent to the date mentioned.

Q. Then did you misunderstand my former question?

A. I misunderstood your former question. I understood you to ask about the pay-roll for the whole year.

Q. Did you find any other pay-rolls besides pay-roll No. 36 of which all or any part were improperly charged to this account?

A. I did.

The pay-roll, No. 36, dated December 8, was admitted in evidence and marked "Exhibit No. 140, April 29, 1907, C. B."

Pay-roll, No. 36, dated December 15 was admitted in evidence and marked "Exhibit No. 141, April 29, 1907, C. B."

Q. What pay-rolls were they?

A. 37, 37½, 29 and 30.

Q. What did you find as to pay-roll 37?

A. Pay-roll 37 is a monthly pay-roll. It contains apparently four names. As far as I could find, those four names have been carried right along, Oscar A. Price, James H. Moynahan, James Moroney, James E. Clifford, \$100 each a month, making a total of \$400 a month.

Q. (Handing paper.) I show you this pay-roll and ask you if this is it?

A. This is pay-roll 37.

Q. Will you look at it again, Mr. Scudder, and tell us whether every man on that pay-roll received exactly \$100, as you said?

A. James Moroney on this pay-roll received \$125 for the month of December, 1906.

Q. What are the duties performed by the men named on that pay-roll?

A. Oscar A. Price, carpenter work; for example, he might be used on the bridge over Fortieth Street, Park Avenue, over the New York Central tracks, work of that nature. James H. Moynahan, foreman of a gang in what is known as Kenny's section. The accounts are paid out of Repairs and Renewals of Pavements and Regrading. James Moroney, an inspector of vaults, where the fees are paid through permit by the vault people to the general fund.

Q. What do you mean by vault people, Mr. Scudder?

A. I just shorten the description there. I mean the people that desire to open a pavement or a sidewalk for the purpose of putting in a vault. One more, James E. Clifford, measurer of plumbers and openings all together.

Q. Then how many men on that payroll do you find properly and how many improperly charged?

A. One man properly charged and three men improperly charged.

Q. Mr. Scudder, I'll show you three cards and ask you whether those were made out at your request and how?

A. The cards were made out at my request of Mr. Lloyd in the Commissioner of Public Works' office, the Bureau of Highways. These cards were made out by the men on the pay-roll and signed by them, my assistants looking on.

The cards were admitted in evidence and marked "Exhibits Nos. 142, 143 and 144 respectfully, April 29, 1907, C. B."

Q. Did Mr. Moynahan make out a card?

A. I cannot remember every man that made out a card, but I assume that he did. There were very few that did not in the Bureau of Highways.

Commissioner MITCHEL then read Exhibit No. 142 as follows:

"To the Commissioners of Accounts, New York City.

Register of Employees.

Bureau Highways, Date April 2nd, full name Price, Oscar A., House Address, 49 West 125th Street.

Date of entrance into service of City March, 1896.

Date of entrance into civil service 1896.

Date of entrance into employ of above bureau April, 1902.

Civil service designation, 1904 Foreman, 1905 Foreman, 1906 Foreman, 1907 Foreman.

Salary rate per annum, 1904 \$1,200, 1905 \$1,200, 1906 \$1,200, 1907 \$1,200.

Write below a brief, explicit and accurate description of all the regular duties performed by you in the capacity in which you served the bureau in the following years. For example, if an inspector, state the nature of the inspections made by you, or if a clerk, the nature of record kept or clerical work you performed.

1904, 1905, 1906 and 1907—Foreman of repairs and looking after all wooden bridges, fences, wooden stairways, wooden walks and also small repairs in offices, section offices and yards.

OSCAR A. PRICE.  
Foreman."

Commissioner MITCHEL then read Exhibit No. 143 as follows:

"To the Commissioners of Accounts, New York City.

Register of Employees.

Bureau Highways, date April 3, 1907, full name Clifford, James E., House Address 402 East 79th Street.

Date of entrance into employ of above bureau April 5, 1906.

Civil service designation, 1906 Foreman, 1907 Foreman.

Salary rate per annum, 1906 \$1,200. 1907 \$1,200."

Under the same request for detailed information of services performed is the following:

"1906 Foreman on Plumbers' openings.

1907 Foreman on Plumbers' openings.

JAMES E. CLIFFORD."

Commissioner MITCHEL read Exhibit No. 144 as follows:

"To the Commissioners of Accounts, New York City.

Register of Employees.

Bureau Highways, date April 2, 1907, full name Moroney, James, House Address, 198 Monroe Street.

Date of entrance into service of City, June 12, 1896.

Date of entrance into employ of above Bureau, June 12, 1896.

Civil service designation, 1904 Foreman, 1905 Foreman, 1906 Foreman, 1907 Foreman.

Salary per day, 1904 \$3.50, 1905 \$4, per annum 1906 \$1,500, 1907 \$1,500."

Under the same request for detailed information of services performed is the following:

"1904, Foreman inspecting for violation of vault ordinance.

1905, Foreman inspecting for violation of vault ordinance.

1906, Foreman inspecting for violation of vault ordinance.

1907, Foreman inspecting for violation of vault ordinance.

JAMES MORONEY,  
Foreman."

Q. For what portion of the year did you find pay-roll No. 37 charged against this fund as a whole?

A. Pay-rolls 37 and 37½ appear to have been charged --or did you ask me just about 37?



Q. You may tell about 37½ also.

A. Appears to have been charged entirely to Restoring and Repaving Trust Fund.

Q. Do you mean for the entire year?

A. For the entire year.

Q. For how many years?

A. Three years at least.

Q. What did you find as to pay-roll 37½?

A. Roughly, that no more than \$150 a week could be charged rightfully to this fund.

Q. What is the total of the pay-roll 37½ per week?

A. \$306, not in every instance, but usually \$306.

Q. I show you five pay-rolls marked 37½, and ask you if those pay-rolls were charged against this fund?

A. These five pay-rolls No. 37½ were charged against Restoring and Repaving, Special Trust Fund.

Q. What are the dates of those pay-rolls, Mr. Scudder?

A. December 1, 1906, December 8, 1906, December 15, 1906, December 22, 1906 and December 29, 1906.

The pay-rolls were admitted in evidence and marked "Exhibits Nos. 145, 146, 147, 148, 149, respectively, April 29, 1907, C. B."

Q. Now, will you indicate what men on Exhibit No. 145 were properly chargeable against Restoring and Repaving, Special Fund, and what men were not properly chargeable against it?

A. I would put it in this way, that the only possible ones are those whose names I am going to read off—

Q. I want you to indicate both, run through the pay-roll.

A. The only proper charges: John Traynor—do you wish me to give a description of what they did?

Q. Yes.

A. General foreman, inspector of sidewalks on complaints of police. John Silva, examines for gutter bridges, also examines complaints on sidewalks.

Q. Is the name John Silva, or Joseph Silva?

A. Joseph Silva. Michael Gaimari, inspector of sidewalks. Phillip Tuite, also inspector of sidewalks. John McCord, also inspector of sidewalks. Michael Wilson, also inspector of sidewalks.

Those not in any way properly chargeable:

Dennis M. Sullivan, surveying party for public contract; Frederick S. Young, also surveying party; Julius Mandelbaum, clerk in president's office; Edward J. Deegan, surveying party; George Edgerton, surveying party; Thomas F. Hardy, surveying party; Henry Schliemann, copies letters and makes out permits in engineers' department; Simon Rosenfeld, in map room, room No. 1629, 13 Park Row, handles maps; William Henderson, surveying party.

Q. Now, Mr. Scudder, how did you learn what work was actually being done by the men on this pay roll?

A. I learned that by making inquiries of clerks in the Bureau of Highways, I asked Mr. Fisher, I asked Mr. McManus, I asked Mr. Wund, I asked Mr. Benjamin and several others who knew about the men that were employed on these pay-rolls.

Q. Now, Mr. Scudder, you have Exhibit No. 145 before you?

A. Yes, sir.

Q. I am reading from Exhibit No. 146: John Traynor, on this exhibit, being pay-roll 37½, has the designation general foreman. What work is it you said Mr. Traynor did?

A. Inspects sidewalks on complaints of police.

Q. And you have allowed his charge as proper against the Restoring and Repaving, Special Fund?

A. I have allowed his charge as proper in case the work that he was inspecting had to be done in connection with a plumbers' opening, but I had no means of finding just exactly what work he had done for the year.

Q. Did you for that reason assume his charge was proper against this fund?

A. I assumed that it might be proper.

Q. In making your estimate, have you allowed it as a proper charge or not?

A. I have allowed him as a proper charge.

Q. Take Dennis M. Sullivan, the second name appearing on this Exhibit 146, his designation here is foreman. What is the work you say that he did?

A. He was connected with a surveying party for public contract.

Q. Is this a card made out by Mr. Sullivan at your request? (Handing card.)

A. It is or it has been.

The card was admitted in evidence and marked "Exhibit No. 150."

Commissioner MITCHEL then read Exhibit No. 150 as follows:

"To the Commissioners of Accounts, New York City.

Register of Employees.

Bureau Highways, date April 2nd, 1907, full name Sullivan, Dennis M., house address 451 East 88th Street.

Date of entrance into service of City September 28th, 1893.

Date of entrance into civil service September 28th, 1893.

Date of entrance into employ of above bureau Organization of Bureau.

Civil service designation 1904 Foreman, 1905 Foreman, 1906 Foreman, 1907 Foreman.

Salary rate per day, 1904 \$3.50 and \$4, 1905 \$4, 1906 \$4, 1907 \$4."

Under the same request for detailed information of services performed is the following:

"1904, 1905, 1906 and 1907 Foreman under supervision of chief engineer. My duties are to act as instrument man giving grades for new pavement and sometimes chaining and rod work, also assisting in making preliminary and final surveys and sometimes locating house lines and monuments.

DENNIS M. SULLIVAN."

*Q.* Have you allowed this man's charge as proper or improper against this fund?

*A.* Improper.

*Q.* On this Exhibit 146 Joseph Silva has a designation of foreman. What work is it that you said Joseph Silva did?

*A.* Examines for gutter bridges, also examines complaints on sidewalks.

*Q.* Have you allowed him as a proper or improper charge?

*A.* As a proper charge.

*Q.* Michael Gaimari is known here as a foreman. What work did you say he does?

*A.* Inspector of sidewalks.

*Q.* Have you allowed him as a proper or improper charge?

*A.* As a proper charge; for the same reason as John Traynor.

*Q.* Phillip Tuite, known as a foreman on Exhibit 146. Have you allowed him as a proper or improper charge?

*A.* Proper charge for the same reason.

*Q.* Frederick S. Young, known as foreman on Exhibit 146. What work did you say he did?

*A.* Connected with a surveying party, and I have not allowed him for the same reason that I did not allow Dennis M. Sullivan.

*Q.* Is this a card made out by Mr. Young at your request?

A. I assume it is.

Q. Is it?

A. Yes.

The card was admitted in evidence and marked "Exhibit No. 151, April 29, 1907, C. B."

Commissioner MITCHEL then read Exhibit No. 151 as follows:

"To the Commissioners of Accounts, New York City.

Register of Employees.

Bureau of Highways, date April 3rd, 1907, full name Young, Frederick S., house address 1773 Amsta. Avenue.

Date of entrance into service of City August 4th, 1898.

Date of entrance into civil service same date.

Date of entrance into employ of above Bureau since organization.

Civil service designation 1904 Foreman, 1905 Foreman, 1906 Foreman, 1907 Foreman.

Salary rate per day, 1904 \$3.50, 1905 \$3.50, 1906 \$3.50, 1907 \$3.50."

Under the same request for detailed information of services performed is the following:

"1904, Foreman detailed with engineer corps.

1905, Foreman detailed with engineer corps.

1906, Foreman detailed with engineer corps.

1907. Foreman detailed with engineer corps.

FREDERICK S. YOUNG."

Q. Joseph McCord——

A. John McCord I have it here.

*Q.* John McCord on Exhibit 146 is known as assistant foreman. What work do you say it was he did?

*A.* Inspector of sidewalks and allowed for the same reason as the other inspector.

*Q.* Allowed as proper?

*A.* As proper.

*Q.* Julius Mandelbaum, known as assistant foreman on Exhibit 146?

*A.* Connected with president's office as clerk and messenger and not allowed.

*Q.* (Handing card.) Is this a card made out by Mr. Mandelbaum at your request?

*A.* It was, under my personal supervision.

The card was admitted in evidence and marked "Exhibit No. 152, April 29, 1907, C. B."

Commissioner MITCHEL then read Exhibit No. 152 as follows:

"To the Commissioners of Accounts, New York City.

Register of Employees.

Bureau Highways, date April 2nd full name Mandelbaum, Julius, house address 1584 First Avenue.

Date of entrance into service of City November 10th, 1898.

Date of entrance into civil service November 10th, 1898.

Date of entrance into employ of above Bureau November 10th, 1898.

Civil service designation 1904 Laborer, 1905 Laborer, 1906 Laborer and Assistant Foreman, 1907 Assistant Foreman.

Salary rate per day 1904 \$2 and \$2.50, 1905 \$2.50, 1906 \$2.50 and \$3, 1907 \$3."

Under the same request for detailed information of services performed is the following:

“1904, Laborer.

1905, Laborer.

1906, Laborer and Assistant Foreman.

1907, Assistant Foreman.

JULIUS MANDELBAHM.”

*Q.* Edward J. Deegan, known on Exhibit 146 as assistant foreman. What work did you say he did?

*A.* Connected with a surveying party and not allowed for the same reason——

*Q.* Not allowed as a proper charge?

*A.* Not allowed as a proper charge for the same reason as stated before.

*Q.* Is this card made out by Mr. Deegan at your request (handing card)?

*A.* It is.

The card was admitted in evidence and marked “Exhibit No. 153, April 29, 1907, C. B.”

Commissioner MITCHEL read Exhibit No. 153 as follows:

“To the Commissioners of Accounts, New York City.

Register of Employees.

Bureau Highways, date April 2nd, 1907, full name Deegan, Edward J., house address 221 Mott Street.

Date of entrance into service of City May 20th, 1902.

Date of entrance into civil service May 20th, 1902.

Date of entrance into employ of above Bureau May 20th, 1902.

Civil service designation, 1904 Assistant Foreman, 1905 Assistant Foreman, 1906 Assistant Foreman, 1907 Assistant Foreman.

Salary rate per day, 1904 \$3, 1905 \$3, 1906 \$3, 1907 \$3."

Under the same request for detailed information of services performed is the following:

"1904, 1905, 1906 and 1907, Assistant Foreman under-supervision of chief engineer. My duties are to act as rodman giving grades for new pavements and chainman in making preliminary and final surveys. Also carrying instruments.

EDWARD J. DEEGAN."

*Q.* George Edgerton is known on Exhibit 146 as an axeman. What duties did you say he did?

*A.* He is also connected with a surveying party and disallowed for the same reasons as the former.

*Q.* Disallowed as a proper charge.

*A.* Disallowed as a proper charge against the Restoring and Repaving Account.

*Q.* (Handing card) Is that a card made out by Mr. Edgerton?

*A.* Yes.

The card was admitted in evidence and marked "Exhibit No. 154, April 29, 1907, C. B."

Commissioner MITCHEL then read Exhibit No. 154 as follows:

"To the Commissioners of Accounts, New York City.

Register of Employees.

Bureau Highways, date April 3rd, 1907, full name Edgerton, George, house address 138 West 117th Street.



Date of entrance into service of City February 14th, 1896.

Date of entrance into civil service same date.

Date of entrance into employ of above Bureau since organization.

Civil service designation, 1904 Axeman, 1905 Axeman, 1906 Axeman, 1907 Axeman.

Salary rate per day, 1904 \$2.50, 1905 \$2.50, 1906 \$2.50, 1907 \$2.50."

Under the same request for detailed information of services performed is the following:

"1904, Axeman with engineer corps.

1905, Axeman with engineer corps.

1906, Axeman with engineer corps.

1907, Axeman with engineer corps.

GEORGE T. EDGERTON."

Q. Thomas F. Hardy is known on Exhibit 146 as axeman. What work is it that he did?

A. He was also connected with a surveying party and disallowed as not a proper charge against Restoring and Repaving Fund by me, for the same reason as Edgerton.

Q. (Handing card) Is this a card made out by him at your request?

A. It is.

The card was admitted in evidence and marked "Exhibit No. 155, April 29, 1907, C. B."

Commissioner MITCHEL then read Exhibit No. 155 as follows:

"To the Commissioners of Accounts, New York City.

Register of Employees.

Bureau Highways, date April 2nd, 1907, full name Hardy, Thomas F., house address 58 Morning-side Avenue.

Date of entrance into service of City April 1st, 1904.

Date of entrance into civil service April 1st, 1904.

Date of entrance into employ of above Bureau April 1st, 1904.

Civil service designation, 1904 Axeman, 1905 Axeman, 1906 Axeman, 1907 Axeman.

Salary rate per day, 1904 \$2.50, 1905 \$2.50, 1906 \$2.50, 1907 \$2.50."

Under the same request for detailed information of services performed is the following:

"1904, Axeman.

1905, Axeman.

1906, Axeman.

1907, Axeman.

THOMAS F. HARDY."

Q. Michael J. Wilson is known on Exhibit 146 as a laborer. What work is it you say he did?

A. Inspector of sidewalks, and allowed as a proper charge against Restoring and Repaving Fund, for the same reason that others on this roll doing inspection of sidewalks were allowed.

Q. Henry Schliemann is known on Exhibit No. 146 as a laborer. What work is it that he did?

A. His work is to copy letters and make out permits in the engineers' department at 13 Park Row.

Q. Was he allowed or disallowed as a proper charge?

A. He was disallowed.

Q. (Handing card) Is this a card made out by him at your request?

A. Yes.

The card was admitted in evidence and marked "Exhibit No. 156, April 29, 1907, C. B."

Commissioner MITCHEL then read Exhibit No. 156 as follows:

"To the Commissioners of Accounts, New York City.

Register of Employees.

Bureau Highways, date April 1st, 1907, full name Henry Schliemann, house address 105 East 89th Street.

Date of entrance into service of City 1897.

Date of entrance into civil service 1897.

Date of entrance into employ of above Bureau since organization.

Civil service designation, 1904 Laborer, 1905 Laborer, 1906 Laborer, 1907 Laborer.

Salary rate per day, 1904 \$2.50, 1905 \$2.50, 1906 \$2.50, 1907 \$2.50."

Under the same request for detailed information of services performed is the following:

"1904, 1905, 1906 and 1907, copying letters and general work around office.

HENRY SCHLIEMANN."

Q. Simon Rosenfeld is known on Exhibit 146 as a laborer. What work is it that he did?

A. Handles maps in the map room at 13 Park Row.

Q. Was he allowed or disallowed as a proper charge against this account?

A. Disallowed.

*Q.* (Handing card) Is this a card made out at your request by him?

*A.* It was.

The card was admitted in evidence and marked "Exhibit No. 157, April 29th, 1907, C. B."

Commissioner MITCHEL read Exhibit No. 157 as follows:

"To the Commissioners of Accounts, New York City.

Register of Employees.

Bureau Highways, date April, 1907, full name Rosenfeld, Simon, house address 127 East 86th Street.

Date of entrance into service of City July, 1898.

Date of entrance into civil service, 1898.

Date of entrance into employ of above Bureau since organization.

Civil service designation, 1904 Laborer, 1905 Laborer, 1906 Laborer, 1907 Laborer.

Salary rate per day, 1904 \$2.50, 1905 \$2.50, 1906 \$2.50, 1907 \$2.50."

Under the same request for detailed information of services performed is the following:

"1904, 1905, 1906 and 1907, General work in map and record room.

SIMON ROSENFELD."

*Q.* William Henderson is known on Exhibit 146 as laborer. What work was it that he did?

*A.* He is connected with a surveying party, disallowed as a proper charge against Restoring and Repaving, Special Fund, for the same reason as other employees that

have been charged in this pay-roll connected with surveying parties.

*Q.* Did you say disallowed?

*A.* Disallowed.

*Q.* (Handing card) Is this a card made out by him at your request?

*A.* It is.

The card was admitted in evidence and marked "Exhibit No. 158, April 29, 1907, C. B."

Commissioner MITCHEL then read Exhibit No. 158 as follows:

"To the Commissioners of Accounts, New York City.

Register of Employees.

Bureau Highways, date April 2nd, 1907, full name Henderson, William, house address 344 East 81st Street.

Date of entrance into service of City May 1st, 1895.

Date of entrance into civil service May 1st, 1895.

Date of entrance into employ of above Bureau, May 1st, 1895.

Civil service designation, 1904 Laborer, 1905 Laborer, 1906 Laborer, 1907 Laborer.

Salary rate per day, 1904 \$2.50, 1905 \$2.50, 1906 \$2.50, 1907 \$2.50."

Under the same request for detailed information of services performed is the following:

"1904, 1905, 1906 and 1907, Laborer, duties are to act as axeman giving grades for new pavement and making preliminary and final surveys.

WILLIAM HENDERSON."

Q. Does this complete pay-roll 37½?

A. It does.

Q. For what portion of the year did you say this pay-roll was charged against the Special Fund?

A. For the whole year.

Q. Have you calculated the total amount improperly charged against the Special Fund under this pay-roll for the entire year, 1904?

A. I have.

Q. What is it?

A. Estimated at \$20,228.50 as wrong and \$7,950 as correct, for 37 and 37½, I put those together.

Q. That is the total which you have just given us groups 37 and 37½.

A. 37 and 37½.

Q. Did you find any other pay-roll of which any part was improperly charged against this fund?

A. I did.

Q. What pay-roll?

A. What pay-roll or pay-rolls?

Q. Pay-rolls.

A. 29 and 30.

Q. I show you a pay-roll and ask you what one it is.

A. This is pay-roll 30.

Q. For what date?

A. Pay-roll for December 15, 1906, December 22, 1906, and December 29, 1906.

Q. Against what fund is the pay-roll for the first date named charged?

A. Restoring and Repaving, Special Fund; likewise for the second date against the same account and for the third date against the same account.

Q. How is the pay-roll entitled?

A. The pay-roll is entitled "Pay-roll of Laborers, etc., on Boulevards, Roads and Avenues, Maintenance of, Bureau of Highways," but this "boulevard, roads and avenues; maintenance of, Bureau of Highways," has been scratched out and "Restoring and Repaving Fund" in each instance has been written in in ink.

The pay-rolls were admitted in evidence and marked "Exhibits Nos. 159, 160 and 161 respectively, April 29, 1907, C. B."

*Q.* For what portion of the year did you find pay-roll No. 30 charged against this Special Fund?

*A.* Usually the last, the very last portion of the year, and for 1906, December, 1906.

*Q.* Have you analyzed those divisions of this pay-roll charged against that fund to determine the amount properly and the amount improperly charged against it?

*A.* I have.

*Q.* How did you analyze that?

*A.* I talked with the man that had charge of that particular pay-roll, by the name of Callahan, and asked him about the separate duties of the men on that pay-roll.

*Q.* Did you also get the various men named on this pay-roll to make out cards stating their duties?

*A.* I did not do that, no. It was done, but I did not do it.

*Q.* You did not do it personally?

*A.* I did not do it personally.

*Q.* Well, did you use these cards in part as a basis for your analysis?

*A.* I did.

*Q.* Well, will you tell us how you analyzed the pay-roll and what conclusion you arrived at?

*A.* In the first place, I found out what the pay-roll was for principally. It covered laborers on macadam streets and I made careful inquiry to find if this pay-roll was in any way properly chargeable against the Restoring and Repaving Special Trust Fund, and I found that the work done by the laborers on this pay-roll in repairing plumbers' cuts in macadam streets was so small as to be almost a negligible quantity compared with work of this nature on other streets, inasmuch as the macadam streets are very few in number.

*Q.* Did you find that the laborers named on that pay-

roll did any work in connection with the restoration of asphalt or other improvements over plumbers' cuts?

A. Only in connection with macadam pavements, and then in the few instances of the few streets where macadam pavement occurred and those were in streets where there wasn't the necessity for making openings, the large necessity that there is on the other streets in the City.

Q. Is the work of all the men named on this pay-roll confined to macadam streets?

A. Largely confined.

Q. What streets other than macadam?

A. No others.

Q. Then it is entirely confined to macadam streets, isn't it?

A. I should say so.

Q. Well, what portion of this pay-roll charged against Restoring and Repaving, Special Fund, did you allow as a proper charge and what proportion did you disallow as an improper charge?

A. I disallowed all of this pay-roll, inasmuch as the quantity that might be charged was so very small, and I gave a great leeway on the pay-roll 36, which more than made up for any charge that might have been correctly made from this pay-roll to Restoring and Repaving, Special Trust Fund.

Q. Then you disallowed this entire pay-roll as an improper charge?

A. I disallowed this entire pay-roll.

Q. To what account is this pay-roll customarily charged?

A. Boulevards, Roads and Avenues, Maintenance of.

Q. What kind of an account is that?

A. Appropriation account.

Q. At what particular time of the year, if any, is this pay-roll charged to Special Fund Account?

A. Usually the last month in the year.

Q. Were you able to discover any reason for that?

A. None other than it was intimated by the bookkeeper that the appropriation accounts were running low.



*Q.* What is the total amount which you found paid under this pay-roll in the year 1904 which you disallowed as an improper charge against that fund?

*A.* I will read it in three items: \$3,634.86, \$2,181, \$2,202.25.

*Q.* What do those numbers refer to?

*A.* Those refer to three separate charges made in the year 1904 against the Restoring and Repaving, Special Trust Fund.

*Q.* On what pay-roll?

*A.* On pay-roll 30.

*Q.* Does that mean that those are the three separate pay-rolls charged against that fund—three separate subdivisions of that pay-roll?

*A.* It does.

*Q.* Does that mean that this pay-roll was charged against that fund for three weeks only?

*A.* Yes.

*Q.* Did you analyze pay-roll No. 29 to determine what portion of this pay-roll was properly and what improperly charged?

*A.* I did and in the same way.

*Q.* What proportion did you find properly chargeable against the fund?

*A.* None.

*Q.* Does that mean that you found the entire pay-roll charged improperly?

*A.* Yes, sir.

*Q.* For what portion of the year 1904 was this pay-roll charged against this Special Fund?

*A.* Usually the last month in the year. For 1904, the last month, December.

*Q.* I show you three copies of pay-roll and ask you what they are?

*A.* This is pay-roll 29 for the month of December, 1906—that is, there are three pay-rolls, December 15, 1906, December 22, 1906, and December 29, 1906. This pay-roll has been charged for those three separate dates to Restoring and Repaving, Special Fund, in each instance.

The pay-rolls were admitted in evidence and marked "Exhibits Nos. 162, 163 and 164, respectively, April 29, 1907, C. B."

*Q.* In each instance, Mr. Scudder, I have shown you pay-rolls for the year 1906. I ask you whether they differ materially or are the same as pay-rolls bearing the same number for the year 1904?

*A.* Practically the same, same conditions.

*Q.* You say that you disallow pay-roll No. 29 as a proper charge against this fund for the year 1904. Will you tell us what you found the duties performed by the men named on that pay-roll were?

*A.* The duties of the men found on this pay-roll are principally for maintaining and sprinkling pavements.

*Q.* What kind of pavements?

*A.* That I do not know, but the pay-roll has to do particularly with the sprinkling of streets and presumably the streets that the City had to keep in repair itself.

*Q.* Now did you examine all of the pay-rolls of that number charged against the Special Trust Fund in the year 1904?

*A.* I have been over all the pay-rolls for the year 1904.

*Q.* Did you find any one on any one of those pay-rolls whose pay was properly chargeable against this Fund?

*A.* For the year 1904?

*Q.* For the year 1904.

*A.* I did not.

*Q.* Against what fund is this pay-roll customarily charged?

*A.* Against the maintaining and sprinkling fund. I have forgotten the name of it.

*Q.* (Handing paper) Will you look at this.

*A.* I do not think that is the name. This says, "Pay-roll of Laborers, etc., on Boulevards, Roads and Avenues, maintenance of, Bureau of Highways, under the President of the Borough of Manhattan." That of course is crossed out and Restoring and Repaving Fund account has been put in above.

*Q.* At what time of the year is this pay-roll charged against the Special Fund?

*A.* The last month in the year, in almost every case.

*Q.* Now, Mr. Scudder, will you tell us what the total pay-roll charges for the year 1904 against this fund were?

*A.* \$85,260.58.

*Q.* Does that total cover pay-rolls 37, 37½, 36, 29 and 30, about which you have testified?

*A.* That I have testified have been charged to Restoring and Repaving Fund Account.

*Q.* Does it cover any other pay-roll

*A.* It does **not**.

*Q.* Will you tell us the total of the foregoing totals which was properly charged according to your calculation against that fund?

*A.* You neglected to ask me about the totals of 29, which should be added in them before giving the whole total.

*Q.* You may give that now.

*A.* In 1904, \$950.75 was charged from 29, and \$904.29 was charged from 29 in December, 1904, as I remember, at least these are the correct figures as taken by me from the books. The total, therefore, from the figures I have given, wrongfully charged for the year against Restoring and Repaving Fund—

*Q.* I have asked first for the total properly charged.

*A.* The total properly charged would be on this calculation \$9,251.29.

*Q.* Now, will you give us the total improperly charged for the year 1904.

*A.* It is a total of \$76,009.29.

*Q.* Mr. Scudder, did you make a similar analysis of the various pay-rolls for the year 1905?

*A.* I did.

*Q.* What pay-rolls in that year did you find charged in part or in whole against this fund?

*A.* The same.

*Q.* What was the total so charged during the year 1905?

*A.* \$87,742.01.

*Q.* Of that what was the total properly charged?

*A.* \$9,351.98.

*Q.* What was the total improperly charged?

*A.* \$78,390.03.

*Q.* Did you make a similar analysis of the pay-rolls charged against this fund for the year 1906?

*A.* I did.

*Q.* What pay-rolls were they?

*A.* The same.

*Q.* What was the total so charged for the year 1906?

*A.* \$51,842.32.

*Q.* Of that what was the total properly charged?

*A.* \$8,456.96.

*Q.* What was the total improperly charged?

*A.* \$43,385.36.

*Q.* Did you make a similar analysis of pay-rolls charged against this fund for the year 1907?

*A.* I did.

*Q.* What pay-rolls were charged against the fund in 1907?

*A.* So far, 37 and 37½ only.

*Q.* What was the total so charged under those two pay-rolls?

*A.* \$5,143.50.

*Q.* Of that what was the total properly charged?

*A.* \$2,400.00.

*Q.* What was the total improperly charged?

*A.* \$2,743.50.

*Q.* Have you reckoned the totals for all those years, first, the entire pay-rolls charged, then the amounts properly charged and the amounts improperly charged?

*A.* The amounts improperly charged—

*Q.* First I want the total pay-rolls charged against the fund for 1904, 1905, 1906 and 1907 to date?

*A.* Totals \$229,988.41 to April 2, 1907.

*Q.* Now, give us the total for the years 1904, 1905, 1906 and 1907 properly charged against this fund?

*A.* \$29,460.23.

*Q.* Now, give us the total for the years 1904, 1905, 1906 and 1907 improperly charged?

*A.* \$200,528.18.

*Q.* Mr. Scudder, have you computed the total amount received by the Bureau of Highways for plumbers' licenses during the years 1904, 1905, 1906 and 1907?

*A.* I have.

*Q.* What do you find such total to be?

*A.* For the year 1904, \$153,703.90.

*Q.* For the year 1905 what?

*A.* \$170,474.01.

*Q.* For the year 1906?

*A.* \$158,968.10.

*Q.* For the year 1907?

*A.* I haven't that figured here.

*Q.* What do you find the total of those three years' receipts that you have just mentioned to be?

*A.* \$483,146.01.

*Q.* Have you computed the total amount paid to asphalt companies for the restoration of pavements over plumbers' cuts for the years 1904, 1905 and 1906?

*A.* I have, including the refunds.

*Q.* What does those totals amount to, including the refunds?

*A.* 1904, \$52,107.61; 1905, \$58,415.88; 1906, \$65,179.67.

*Q.* What does the sum of those totals amount to?

*A.* \$175,703.16.

*Q.* Have you computed the total of the amount which you last named in the sum of the totals paid to the asphalt companies, plus refunds to plumbers, and the total properly charged against this fund for payrolls for the three years including a portion of 1907?

(Question repeated by stenographer.)

Commissioner MITCHEL—I will ask my question again.

*Q.* You have computed the total properly charged against this fund for pay-rolls for the years 1904, 1905, 1906 and 1907, and have testified that such total is \$29,460.23. You have computed the total paid to asphalt companies for the restoration of plumbers' cuts, including the amount paid to plumbers as refunds, and have testified that such total amounts to \$175,703.16. Now, I ask if you have computed the sum of those two totals?

*A.* The sum of those two totals would include part of 1907.

*Q.* Yes?

*A.* Do you wish that included?

*Q.* Yes, tell us what the sum of those two totals is?

*A.* \$175,703.16, plus \$29,460.23, which would make \$205,163.39, but that included \$2,400 in 1907.

*Q.* Now, Mr. Seudder, does that total which you have just read to us represent the only sums according to your calculation, properly chargeable against this fund during the years named?

*A.* This amount plus what was paid to asphalt companies up to date of April 2d, 1907, since December 31st, 1906.

*Q.* Can you tell us approximately what that would amount to?

*A.* \$10,000, between \$10,000 and \$20,000.

*Q.* Would therefore the sum of \$205,163.39 and the ten to twenty thousand dollars payable to asphalt companies which you have just mentioned constitute the only charges properly made against this fund during the years named?

*A.* Plus some refunds, if they were made.

*Q.* Didn't you say that total included the refunds?

*A.* It does not from December 31st, 1906, up to April 2d, 1907.

*Q.* Can you tell us what those refunds amount to?

*A.* A few thousand dollars.

*Q.* Would any other charges beyond those be properly made against this fund?

*A.* No, I should say at the outside \$220,163.39.

*Q.* Would be the proper——

*A.* Would be the only charges that could properly be made against this account in the three years and two or three months.

*Q.* Now, you have testified that during the years 1904, 1905 and 1906, The Bureau received into this fund \$483,146.01, is that correct?

*A.* That is correct.

*Q.* Then, according to your calculation, there should be now in that fund the difference between \$225,000, roughly, and \$483,146.01, is that correct?

*A.* That is correct.

*Q.* What would said fund amount to?

*A.* It would be more than that.

*Q.* Why would it be more than that?

*A.* Because there are undoubtedly payments made since December 31, 1906, up to April 2d, 1907.

*Q.* Leaving those out of the calculation, what would the difference between those figures that I have named be?

*A.* \$257,982.62.

*Q.* Did you make an examination of that fund to find what the actual balance in the fund was at any given date?

*A.* I did.

*Q.* On what date, as of what date did you make that examination?

*A.* About April 10th, 1907, at the beginning of my examination.

*Q.* Will you tell us what that balance was?

*A.* The balance, December 31st, 1906, was \$149,349.41.

*Q.* Was that cash balance?

*A.* That is a cash balance.

*Q.* Were there not outstanding charges against that on that date?

A. I should say there were.

Q. Mr. Scudder, I am going to ask you to go back in your testimony and make the calculation on the basis of the years 1904, 1905 and 1906, excluding the year 1907, as you made your examinations of cash balances on December 31st, 1906?

A. For the year—the total pay-rolls charged to Restoring and Repaving Fund for the years 1904, 1905 and 1906, \$244,844.91. Properly charged for the years 1904, 1905 and 1906, \$27,060.23. Improperly charged \$197,784.68. The amount received was \$483,146.01. The cost of doing the work, plus the refunds for those years, \$175,703.16. I add to that the amount properly chargeable that I figured on, \$27,060.23, which makes \$202,763.39 properly chargeable.

Q. Now what balance does that leave which should have been found in this fund on December 31st, 1906?

A. The balance December 31st, 1903, was \$66,751.47, the amount received in the three years was \$483,146.01, which added to that balance makes \$549,897.48. There should out of that fund have been taken, as I have said before, \$202,763.39, which would leave a balance of \$347,134.09, whereas there is a balance as of December 31st, 1906, of only \$149,349.41, or, according to the calculation, \$197,784.68 short.

Q. Does that mean that \$197,784.68 was improperly paid out of this fund during those three years?

A. I should say that roughly. That is a rough amount on the estimate that I have made.

Commissioner MITCHEL—The stenographer will here note that the law bearing upon this trust fund has already been read in evidence and appears on pages 238 to 243 of the record.

Q. Mr. Scudder, did you examine any other fund with a view to determining whether any charges had been improperly made against it for any purpose?

A. I did.



*Q.* What fund?

*A.* The next one I have here is the Street Improvement Fund.

*Q.* Did you find any charges made improperly against this fund?

*A.* I found charges against this fund which varied very much and not in proportion to the work done, which goes to show, to my mind, that charges were not made properly.

*Q.* What class of charges were these?

*A.* Pay-roll charges.

*Q.* In what year did you find these charges?

*A.* For the years 1904, 1905 and 1906.

*Q.* Will you tell us just what you found in this connection?

*A.* I found that against the Street Improvement Fund there had been made the following charges for work done and presumably assessed upon property owners; 1904, \$592,447.47; 1905, \$643,726.01; 1906, \$911,312.54. During these years the following pay-roll charges were made; 1904, \$51,784.67; 1905, \$45,454.96; 1906, \$42,033.05.

*Q.* You mean that those sums were paid out of the Street Improvement Fund on pay-rolls?

*A.* They were paid out of the Street Improvement Fund on pay-rolls. I noted that notwithstanding the large increase in assessments, which indicated that very much more assessment work was done, and which I found to be the case on inquiry, the pay-roll charges against this Assessment Account had very materially gone down, and I analyzed the pay-rolls charged against this account, which are roughly: No. 7, No. 45 and No. 23, and I found that No. 23 pay-roll was particularly accountable for the going down in the amount of pay-roll as against the large increase or going up of the assessment work. For example, during 1904, out of the total pay-roll 23 of \$24,507.77, there was charged to salaries \$10,791.05, and charged to Street Improvement Fund \$13,786.72 dur-

ing 1905, out of a total of \$22,134.84, there was charged to salaries \$10,627.30, and charged to Street Improvement Fund \$11,507.54, and 1906, out of a total of \$20,262.46, \$13,054.21 charged to salaries and charged to Street Improvement \$7,208.25. That goes to show that the per cent., which I will give, of the total pay-roll 23 charged to Street Improvement Fund for 1904 was 56.1 per cent., in 1905 52 per cent. and 1906 it fell off to 35.6 per cent. I made inquiry of Mr. McDermott, Mr. Loomis, Engineer; Mr. Brown, Assistant Engineer, and I could find that there had been no material change in the character of the work done by the people on this pay-roll, that the change in charges to this Street Improvement Assessment Fund had been made arbitrarily apparently.

*Q.* Then you mean that men doing the same work were charged against the Street Improvement Fund in 1904, and against a different fund in 1905 and 1906, is that correct?

*A.* I would say that the proportions of what they were paid in entirety were changed without any change being made in the character of the work they did and that the change was apparently made arbitrarily and without any systematic connection. In July, 1904, a man was taken off of pay-roll 23 and put on another pay-roll in August—1905, I should say.

*Q.* Was that other pay-roll charged against the Street Improvement Fund or some other fund?

*A.* That charge was made against another fund than the Street Improvement Fund.

*Q.* Did the man continue to do the same work?

*A.* He continued to do the same work. In another case, similar case, was where a man died and his successor, who did the same work, was charged in another account.

*Q.* Have you made an examination to find out what basis is used for the charge of pay-roll to Street Improvement Fund?

A. I have made such an examination and reports are made by the employees as to what particular work they do, but that is only in the case of laborers. The engineers are apparently charged as a whole to one account or another, either to salaries account or to Street Improvement Assessment Fund.

Q. Are they always charged to the same account?

A. They are always charged to the same account, except when a change, just as I have mentioned before, is made arbitrarily.

Q. How many such changes did you find?

A. I do not remember at the moment; two at least. There were undoubtedly more.

Q. What other fund did you examine?

A. The other account that I examined, in the order, was Repaving Streets, Borough of Manhattan, corporate stock account.

Q. For what purpose is this fund available?

A. For Repaving Streets, Borough of Manhattan.

Q. Did you find any charges made against that fund which were not proper charges?

A. I did.

Q. What general class of charges were they?

A. They had to do particularly with pay-rolls 35-C and 35-CM. They were pay-roll charges.

Q. Are those the only two pay-rolls charged against this fund, Mr. Scudder?

A. I think so.

Q. What did you find the total charges against this fund in 1904 for pay-roll to be?

A. \$52,590.14.

Q. How much of that total was properly charged against the fund for pay-roll?

A. I estimated that \$30,150 was properly chargeable against that fund.

Q. How much was improperly charged?

A. \$22,440.14.

*Q.* Will you tell us how you analyzed the pay-rolls in order to arrive at that conclusion?

*A.* Yes, sir. I found that the pay-roll contained employees that were doing other work than that connected with the repaving of streets. For example, some of the engineers' salaries were charged against this account, including Mr. Olney's salary, the chief engineer, the corporation holes inspectors, by that I mean the inspectors that were used to examine holes made by corporations to see that they were restored, plumbers' holes inspectors, whom I have already described, and vault holes inspectors, whom I have already described, inspectors used particularly in repairing and maintaining street work, and inspectors used in connection particularly with fire burns. I analyzed pay-rolls 35-CM. by making inquiries as to the specific duties of the employees on that pay-roll, and I estimated from the totals who should and who should not have been charged against this corporate stock account used specially for repaving streets.

*Q.* In concluding who should and who should not be charged against that account, did you consider the work which the given employee was engaged in doing?

*A.* I did consider the work. That was the main basis of my calculation.

*Q.* And where did you get the information concerning the work a given man was doing?

*A.* I got the information concerning what the men were doing from the cashier's office, from the pay-roll clerk, Mr. Fisher, from Mr. McManus in charge of vault openings, from Mr. Goodsell and Mr. Olney, the engineers, from Mr. Kahn, in the Corporation Openings Department, and from others in the department.

*Q.* Did you make a similar examination for the year 1905?

*A.* I did.

*Q.* What did you find to be the total charged against this fund for pay-roll in that year?

*A.* \$67,628.94.

*Q.* Of that how much was properly charged?

*A.* \$30,150, estimated.

*Q.* How much was improperly charged?

*A.* \$37,478.94.

*Q.* Did you make a similar examination for the year 1906?

*A.* I did. \$76,487.69 was the total.

*Q.* How much was properly charged?

*A.* \$31,150, estimated.

*Q.* How much improperly charged?

*A.* \$46,337.69. And for the year 1907, up to April 6th, 1907, the total was \$18,267.50, and I estimated that \$6,900 had been properly charged, and \$11,367.50 improperly charged, making a total for the three years and two or three months of \$117,624.27.

*Q.* Against that——

*A.* Against \$97,350, properly charged.

*Q.* Did you make an examination of any other fund, Mr. Scudder?

*A.* I did, Repairing and Maintaining Asphalt Pavements, Borough of Manhattan, fund account.

*Q.* For what purpose did you make an examination of this fund account?

*A.* For the same purpose, and to ascertain the nature of the charges, under all credits made to this account.

*Q.* Did you find any pay-roll charged against this account?

*A.* I found none.

*Q.* What charges did you find made against this account?

*A.* Charges for fire burns on orders, and charges in payment to the Uvalde Asphalt Paving Company on their repairing and maintaining asphalt pavement contract.

*Q.* Will you give us a tabulation of the charges that you found made against this fund for those purposes?

*A.* This fund was considered in 1905, and I find that for fire burns the charge was \$62,001.02, for 1905. For 1906 the charge was \$49,180.40 for fire burns, and to the Uvaldt Asphalt Paving Company, \$58,905.01.

For the year 1907, up to March 21st, 1907, for fire burns, \$6,233.47, and to the Uvalde Asphalt Company, \$10,557.23.

Making a total for the two years and two or three months, up to March 21st, 1907, of charges in payment for repairing fire burns of \$117,414.89, and to the Uvalde Asphalt Company total of \$69,462.24, making a total charge against this account \$186,877.13.

*Q.* When you say charged for fire burns, do you refer to any particular class of streets?

*A.* I refer particularly in this to streets under guarantee.

*Q.* Do you refer particularly or only to streets under guarantee?

*A.* Only, particularly and only.

*Q.* Mr. Scudder, will you give us a resume of your findings in case of these various accounts, will you first tell us what the total was that you found to be improperly charged against restoring and repaving for the years 1904, 1905 and 1906, that is, against the Restoring and Repaving Special Fund?

*A.* In the Restoring and Repaving Special Fund I found for the years 1904, 1905 and 1906 an estimated amount of \$197,784.68 improperly charged.

*Q.* What was the total you found improperly charged against Repaving Streets, Borough of Manhattan, 1904, 1905, 1906 and 1907 to date?

*A.* Estimated, \$117,624.27.

Commissioner MITCHEL—That is all, Mr. Scudder.

W. D. LOUDON, re-called for further examination, testified as follows:

*Examined by Commissioner MITCHEL:*

*Q.* Mr. Loudon, did you procure at my request the contract for the regulating and repaving with asphalt block

the roadway of Broadway from 119th Street to Manhattan Street?

A. I did.

Q. (Handing paper) Is this that contract?

A. That is the contract.

Q. Where did you procure it, Mr. Loudon?

A. In the record room in the Hall of Records Building.

Q. From what department?

A. Department of Finance.

Q. Did you procure also at my request the Engineer's certificate that relates to this contract?

A. I did.

Q. (Handing paper) Is this it?

A. That is it.

Q. Where did you procure that, Mr. Loudon?

A. Same place.

The papers were admitted in evidence and marked "Exhibits Nos. 165 and 166 respectively, April 29, 1907, C. B."

Commissioner MITCHEL—The stenographer will note that the following appears upon page 1 of Exhibit 165: "Contract summary. City of New York, Department of Finance, Borough of Manhattan, Comptroller's Office. Department of President of the Borough of Manhattan. No. 11,614. Dated December 21st, 1904. Filed January 12th, 1905. Statement of estimates and amounts in the matter of the contract for regulating and repaving with asphalt block pavement on a concrete foundation the roadway of Broadway from 119th to Manhattan Street, together with all work incidental thereto, Borough of Manhattan. New York and Bermudas Company, Contractor. Name of sureties, the United States Fidelity & Guaranty Company and the City Trust Safe Deposit & Surety Company of Philadelphia. Expiration of contract seventy-five days. Amount

of bond \$12,000, damages \$10 per day. Paid in full November 29th, 1905. Surveyor's estimates:

"Estimated cost, amount \$38,042.20. Bond to be continued in force until August 17th, 1910. Bond, account repaving streets, Borough of Manhattan, to be kept in condition for five years."

There follows a tabulated statement, as follows:

1905.

June 13, seventy per cent. payments . . .	\$14,784.00
Amounts paid on account . . . . .	14,784.00
Amounts retained . . . . .	6,336.00
Amounts earned . . . . .	21,120.00

1905.

November 29, seventy per cent. payments	22,492.80
Amounts paid on account . . . . .	37,276.80
Amounts retained . . . . .	.....
Amounts earned . . . . .	37,276.80

In full.

I read from Exhibit 166, as follows:

"Engineer's Certificate.

"I hereby certify that the following amount of work has been completed in the matter of repaving with asphalt block the roadway of Broadway from 119th Street to Manhattan Street, New York & Bermudas Company contractor, since the commencement of the work."

There follows a table of amounts signed George R. Olney, Chief Engineer; George F. Seannell, Superintendent of Highways. Dated August 17th, 1905.

The stenographer will also note that by the voucher attached as a part of Exhibit 166 it appears that there has been previous to the date of this voucher



payment of \$14,784 upon this contract, and that this voucher is for the sum of \$22,492.80, making a total of \$37,276.80 paid to the contractor, and that it appears upon the face of the voucher that nothing was retained as security for repairs, other than the bond.

The stenographer will also note that Exhibits 165 and 166 are referred to in the testimony of the witness Samuel Whinery as appears on page 629 of the record.

Adjourned to Tuesday April 30th, 1907, at 10:30 a. m.

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NEW YORK, April 30th, 1907.

Met pursuant to adjournment.

Present—Commissioners HERTLE and MITCHEL and Mr. BRUERE.

Commissioner MITCHEL—The stenographer is directed to spread upon the minutes in connection with the testimony of the last witness, the following extract from Section 169 of the Greater New York Charter:

“Corporate stock of the City of New York; how issued; provisions as to bonded indebtedness.

“Section 169. All bonds issued by The City of New York on and after January first, eighteen hundred and ninety-eight, in pursuance of laws already passed or which may hereafter be passed, or in pursuance of the provisions of this act, excepting assessment bonds and revenue bonds, shall be known as ‘corporate stock of The City of New York.’ For the redemption and payment of said corporate stock and the interest thereon, the faith and credit of The City of New York shall be and is hereby pledged. Such corporate stock shall be in such form as may be designated by the comptroller, and shall be signed by the said comptroller and the Mayor of The City of New York,

and sealed with the common seal of The City of New York, and attested by the City Clerk. Such corporate stock shall be in coupon form in sums not less than five hundred dollars each share, or shall be registered, and shall be conditioned to be paid in gold coin, or in the legal currency of the United States, at the option of the Commissioners of the Sinking Fund and shall be made redeemable at a period of not less than ten or more than fifty years from the date thereof. Such corporate stock and all assessment bonds and revenue bonds, as well as all bonds hereafter to be issued by The City of New York, by virtue of this act or of any other act, whether general or special, shall be free and exempt from all taxation, except for state purposes. The interest on such corporate stock and on all other bonds of the corporation, except revenue bonds, shall not exceed four per centum per annum, and shall be made payable quarterly or semi-annually, in The City of New York, or at such other place as may be fixed by the said comptroller, at the time of issue of said stock or bonds; provided, however, that the interest on revenue bonds, issued in anticipation of the collection of taxes may be made payable at the date of maturity thereof. Such corporate stock may be authorized to be issued by the Board of Estimate and Apportionment without the concurrence or approval of any other board or public body for the following purposes, and within the following limitations:

“For the repaving of streets to an amount not exceeding three million dollars, in any one calendar year.”

W. D. LUDLOW, recalled for further examination, testified as follows:

*Examined by MR. MITCHEL:*

*Q.* Did you make an examination of the files in the Finance Department for the purpose of learning whether there is on file there an opinion of the Corporation Counsel of New York dealing with the question of the use of cor-

porate stock funds for the repairs of streets, street pavements?

A. I did.

Q. Did you find such an opinion?

A. I did.

Q. (Handing paper) Is this the original opinion of the Corporation Counsel?

A. It is.

Q. Where did you get that, Mr. Loudon?

A. From the Claim Auditor in the Finance Department.

The paper was admitted in evidence and marked Exhibit No. 167, April 30, 1907, C. B.

Q. Did you make an examination of the files of the office of the President of the Borough of Manhattan with a view to learning whether a copy of this opinion is on file in his office?

A. I did not.

Q. Do you know whether such an opinion is on file in the office of the President of the Borough?

A. I do not.

Commissioner MITCHEL then read Exhibit No. 167 as follows:

LAW DEPARTMENT,  
OFFICE OF THE CORPORATION COUNSEL.  
NEW YORK, May 3, 1905.

Claims.

HON. EDWARD M. GROUT,  
Comptroller.

SIR:—I have received a communication from Deputy Comptroller Phillips, dated February 27th, 1905, enclosing contract No. 11326 with the United States and Venezuela Company, dated October 28th, 1904, for repairing and maintaining asphalt pavements in the Borough of Manhattan for one year from the date thereof. The streets are named in the contract and are those "on which

the original guarantee of maintenance has expired, or will expire during the term of the contract." The estimated cost is \$100,400. The contract has been duly executed and the amount earned thereunder is stated as \$43,600. The President of the Borough of Manhattan has attached to the contract a certificate under Section 149 of the Charter certifying that the expense is chargeable to "repaving streets, Borough of Manhattan, Section 169, Chapter 379, Laws 1897, as amended by Chapter 563, Laws of 1902."

There is also the usual certificate of the Comptroller to the effect that there remains unapplied and unexpended a balance of the fund applicable to the contract sufficient to pay the estimated expense of executing the same.

It appears also from the stamps on the margin, opposite to the certificate, that payment is to be made from the bond account for repaving streets under Sections 48 and 169 of the Charter.

I am informed that the bond account referred to was authorized by a resolution of the Board of Estimate and Apportionment adopted March 31, 1904, to the effect that the Board under Section 169 of the Charter authorized the Comptroller to issue corporate stock to the amount of \$3,000,000, the proceeds of which are to be applied to the repaving of streets in the various boroughs under certain conditions.

The tenth sub-division of Section 169 of the Charter as amended by Laws of 1902, Chapter 563, provides, that corporate stock may be authorized to be issued by the Board of Estimate and Apportionment without the concurrence or approval of any other Board or public body, "For the repaving of streets to an amount not exceeding \$3,000,000 in any one calendar year."

It appears also that the Board of Estimate and Apportionment made provision in the budget of 1904 for maintenance and repairs to pavements as follows:

“Maintenance of Boulevards, Roads and Avenues, \$114,150. Repairs and Renewals of Pavements and Re-grading, \$410,758.”

In this situation the question presented for my consideration is as to whether the work performed under this contract can be paid for from the proceeds of corporate stock issued for re-paving streets, or whether payment should properly be made from the moneys provided through the budget of 1904 for maintenance and repairs to pavements.

It is evident that the contract was executed, and work done thereunder, for a part of which payment has already been made, on the theory that it was proper to pay the expense out of the proceeds of corporate stock issued for re-paving under Section 169 of the Charter. I am informed that the expenses of similar contracts for several years have been paid in that manner.

To change this course now would probably involve a breaking of the contract on the part of the City and the risk of its being compelled to pay a large sum for damages. As I am informed there is no money in the fund for maintenance and repairs provided for through the budget which could be used for this purpose.

Furthermore if work should be stopped under this contract it would mean that a large amount of repairs to the asphalt pavements in the Borough of Manhattan, now very much needed, would be necessarily delayed for a long time.

There is besides force in the argument that the contemplated repairs to the pavements are repavements which are expected to last as long as the original pavement, and for many years.

Under all the circumstances and for the reasons indicated, I advise that payment be made from the proceeds of corporate stock as contemplated when the contract was made.

At the same time I doubt whether this course should be followed in the future, and whether it is in strict accordance with the City's financial system.

I would suggest, therefore, that you bring the subject to the attention of the Board of Estimate and Apportionment.

While in a sense the work proposed to be done under this contract is repaving, and is perhaps expected to remain in use for many years, and as long as the original pavement, yet it is, I think, more properly repairs or maintenance and should be paid from moneys raised through the budget. A similar contract is made each year, and it seems hardly in accordance with well recognized principles that money becoming due under such contracts should be paid from the proceeds of corporate stock which does not become payable for perhaps fifteen years, and is in effect redeemed through installments raised by taxation each year during the life of the corporate stock, and thus by the taxpayers of all those years.

I think also that an examination of the origin and history of the statutes authorizing the issue of long-time bonds or corporate stock for repavement, would indicate that they were intended to provide the means of paying for repavements of streets where the old pavements, as a whole, had worn out or had become inadequate, and new ones could not be paid for through local assessment.

Questions of finance and policy, rather than of law, however, are thus raised, but in view of the attention they have recently received, in several branches of the City government, I have suggested that they be brought to the attention of the Board of Estimate and Apportionment.

Respectfully yours,

(Signed) JOHN J. DELANY,

(Contract Enclosed)

Corporation Counsel.

(Stamped) Department of Finance, Comptroller's Office,  
Received May 4, 1905. Deputy Comptroller, City  
of New York.

*Q.* Mr. Loudon, did you examine the accounts in the Borough President's office for the purpose of determining whether any payments have been made to contractors for repairs to street pavements subsequent to the date of that opinion which I have just read ?

*A.* My recollection is now that there was some part of it paid subsequent, but it was all upon the obligation of the contracts in force at that time.

*Q.* Well, then, to put my question in a little different form, were any obligations incurred to contractors for the repairs to street pavements in this Borough against the corporate stock fund subsequent to the date of that opinion ?

*A.* My impression is that there were, I would not be positive as to that without looking again, but what I particularly looked after at the time was as to what contract it covered, and it covered those contracts which were in force at that time for repairing streets.

*Q.* Then if those payments covered only the contracts which were in force at the time of that opinion, then they were not new obligations incurred against that fund subsequent to the date of that opinion to contractors, were they ?

*A.* No, not new obligations, they were new payments.

*Q.* But no new obligations were incurred to contractors for the repairs to street pavements against that fund subsequent to that date, were there ?

*A.* I do not think so, no, sir, there might have been orders for other repair work which may have been charged up to that fund, but I didn't look particularly as to that.

*Q.* If there were such orders, were they not issued under contracts already in force ?

*A.* Well, yes, I should say so. I noticed there in the accounts that a great many of them had been cancelled that had been originally made out, the orders——

*Q.* Then the office in respect to incurring of new obligations to contractors observed the rule laid down in the opinion, did it not ?

A. It would appear so by their requisition register over there, yes.

Commissioner MITCHEL—That is all, Mr. London.

MARVYN SCUDDER, recalled for further examination, testified as follows:

*Examined by Commissioner MITCHEL:*

Q. Mr. Scudder, you testified yesterday that certain payments were made upon pay-roll from the fund known as Repaving Streets, Borough of Manhattan, improperly?

A. I did.

Q. Will you tell us again what that fund is?

A. Repaving Streets, Borough of Manhattan, Corporate Stock Account Fund.

Q. Will you tell us whether any of those payments were made subsequent to May 3d, 1905?

A. Yes, they were.

Q. Will you tell us what proportion, if you have reckoned it, were made subsequent to that date?

A. I have not figured out in a form so that I could tell you just now what those proportions were exactly from May 3d, 1905, up to April, 1907, but I can give it to you for the years 1905, 1906 and 1907 up to April, 1907.

Q. Well, were a part of those payments made in 1905 made subsequent to May 3d, 1905?

A. They were.

Q. Were all of the payments made in 1906 made subsequent?

A. They were.

Q. Were all of the payments made in 1907 made subsequent to that date?

A. They were.

Q. Will you tell us first the total of the payments made in 1907, then the total of the payments made in 1906, then the sum of the two?



A. The total for 1906 charged to pay-roll, Repaving Streets, Borough of Manhattan, Corporate Stock account, was

Q. No, that is not what I asked you. I asked you for the total for that year improperly charged?

A. The total for 1906 in that account improperly charged, \$46,337.69 at least.

Q. And for 1907?

A. Up to April, 1907, \$11,367.50 at least.

Q. What do you find the total of those two amounts to be?

A. \$57,705.19.

Q. Now, was there in addition a certain proportion of the payments improperly made against this fund, out of this fund, in 1905?

A. There were.

Q. Which were made subsequent to May 3d?

A. There were.

Q. Have you reckoned the exact proportion of those payments?

A. I have, but I haven't the figures here.

Q. What was the total of the payments improperly made out of the fund in that year?

A. \$37,478.94 at least.

Q. Now, Mr. Scudder, did I understand you to testify that these payments which you have testified were improperly made out of the corporate stock fund in those years, were made to laborers engaged on work other than the repaving of streets, is that correct?

A. That is correct.

Q. Can you tell us again generally what those laborers were employed in doing during those years?

A. Do you wish me to read from the copies of the pay-rolls that I have made or just tell you in a general way?

Q. I think it will be enough to tell us in a general way.

A. Inspectors of holes made in pavements for corporations; inspectors of holes made in pavements for plumbers; inspectors of holes made in pavements for the purpose

of putting in vaults; inspectors used exclusively in watching repairing and maintaining of streets, and I particularly refer there to those under the Uvalde Contract; inspectors used exclusively in examining fire burns and reporting on same; engineers' salaries; that is all.

*Q.* Then you found that in the years 1906 and 1907 \$57,705.19 were paid out of this fund for those purposes which you have just named? Is that correct?

*A.* That is correct.

*Q.* And that a certain proportion of the sum of \$37,478.94 paid in the year 1905 was paid for these purposes, which you have just named subsequent to May 3d, 1905, is that correct?

*A.* Yes, that is correct, and I should say that over half of that amount was paid improperly.

Commissioner MITCHEL—That is all, Mr. Scudder.

JOHN R. MACNEILLE, recalled for further examination, testified as follows:

*Examined by Commissioner MITCHEL:*

*Q.* Mr. MacNeille, did you by direction of the Commissioners of Accounts make an examination of the contracts let by the office of the Borough President of Manhattan during the years 1904, 1905, 1906 and 1907 to date?

*A.* I did.

*Q.* With what purpose did you make that examination?

*A.* In order to ascertain, among other things, whether there had been an excess in the case of the several contracts of payments made by the City to contractors as approved by the Borough President, in excess of the bid amounts of the contracts let by the Borough President.

*Q.* Will you tell us what records in the Office of the Borough President you examined in the course of that inquiry?

A. The contract ledgers in the Office of the Commissioner of Public Works for the years 1904, 1905, 1906. The bid sheets in the Office of the Borough President, Auditor's Department, in the City Hall, and the original bids, similar ones, in the Office of the Commissioner of Public Works in the Park Row Building for said three years. Various vouchers in said last named office, by means of which payments were made to contractors. The letter book for the year 1905 in the Office of the Chief Engineer of the Bureau of Highways and various engineers' reports in said last mentioned office made by his engineers to said Chief Engineer, and the general ledgers in the office of the Commissioner of Public Works.

Q. Did you find any cases in which the amount paid to a contractor under his contract was in excess of the amount bid?

A. I did.

Q. Will you pick out one sheet in which you found that and tell us about it?

A. The most noticeable case, among others, was the case of the payments by the Borough President to the United States Wood Preserving Company on contracts let to said Company by the Borough President for wood block pavements on concrete. I found that such contracts for wood pavements on concrete had been let by the Borough President to the United States Wood Preserving Company in the year 1904, among others, as per bid sheet 139, let on December 14th, 1904, amount of accepted bid from said contractor \$6,085.40, and a second contract, bid sheet 49, let on August 17th, 1904, the amount of the accepted bid being \$24,177. In the case of the last named contract I found that a bid by Joseph Leopold for \$22,668, which amount was considerably less than the amount of the accepted bid in the case of said contract, was rejected because the samples did not conform with specifications, reference being made to chemist's report, 13,827. I further found that during the year 1905 fifteen contracts were let by the Borough President to the United

States Wood Preserving Company for wood block pavements on concrete as follows:

Bid sheet 114, contract let on June 30th, 1905, accepted bid amount \$22,477.40. With the approval of the Commissioner I will not read the detailed amounts until giving a summary afterwards.

*Q.* Continue as you are giving them now, Mr. MacNeille. What was the bid sheet of the last one you named?

*A.* 114.

*Q.* Will you examine that contract concerning which you last testified, bid sheet 114, again and see whether you gave the correct amount there.

*A.* That is an error which I wish to correct. I was reading from the 1906.

*Q.* Will you begin again at that point, Mr. MacNeille?

*A.* Bid sheet 114, \$11,304.60.

*Q.* What company was it that gave that bid?

*A.* The United States Wood Preserving Company.

*Q.* Go on, Mr. MacNeille?

*A.* Bid sheet 198, amount \$30,553.70; bid sheet 193, \$135,512.73; bid sheet 201, \$23,498.50; bid sheet 204, \$59,951; bid sheet 194, \$3,264.90; bid sheet 197, \$9,495.20; bid sheet 199, \$19,007.20; bid sheet 200, \$5,152.40; bid sheet 202, \$5,768.25; bid sheet 203, \$2,217.20; bid sheet 106, \$23,605.40; bid sheet 113, \$75,992; bid sheet 109, \$30,482; bid sheet 111, \$37,441.40.

*Q.* What did you find as to those contracts that you have just named, Mr. MacNeille?

*A.* The contracts which I have just named, with the exception of two other contracts let to said company in 1904, were all of the contracts let during the years 1904 and 1905 by the Borough President to the United States Wood Preserving Company, and I found in the case of each one of the contracts which I have enumerated in detail a considerable excess in the amount of the payments

totalled by the Borough President to the contractor over the bid amount which was accepted by the Borough President when the contract was awarded to said company.

*Q.* Did you find such excess in the case of every one of those contracts which you have just named?

*A.* I did.

*Q.* Were there any other contracts let to the United States Wood Preserving Company during those years by the Borough President's office?

*A.* There were not any others than those I have described.

*Q.* Then, do you mean to say there was an excess in the case of every contract let to this company during those years?

*A.* I do so state and such excesses were considerable in amount.

*Q.* Have you tabulated the excesses paid to contractors over bid prices for contracts let to the United States Wood Preserving Company during those years?

*A.* I have done so.

*Q.* Will you give us the tabulation which you have made?

*A.* The tabulation of the excess payments by the Borough President of Manhattan to the United States Wood Preserving Company on the contracts just enumerated for returned amounts of payments over bid prices or amounts accepted is as follows: In each case the number of the bid sheet is the same as the folio of the contract ledger for the year in question and I will simply give the bid sheet number in reading.

Contracts let in 1905. Bid sheet 198, bid price——

*Q.* Please give us the name of the contractor in each case.

*A.* Contractor, United States Wood Preserving Company, bid price \$30,553.70, returned amount paid to

contractor \$36,261.54; excess of payments over bid price accepted, \$5,707.84.

Bid sheet 193, contractor United States Wood Preserving Company, bid price accepted \$135,512.73; returned amount, total \$138,152.09; excess \$2,639.36.

Bid sheet 201, contractor United States Wood Preserving Company, bid price \$23,498.50; returned amount \$30,512.43; excess payment to contractor over bid price \$7,013.93.

Bid sheet 204, contractor United States Wood Preserving Company. Bid price \$59,951. Returned amount, \$64,203.93. Excess \$4,252.93.

Bid sheet 194, contractor United States Wood Preserving Company. Bid price, \$3,264.90. Returned amount, \$3,629.40. Excess \$364.50.

Bid sheet 197. Bid price \$9,495.50. Returned amount \$11,206.75. Excess \$1,711.55.

Bid sheet 199. Contractor United States Wood Preserving Company. Bid price \$19,007.20. Returned amount \$21,560.81. Excess \$2,553.61.

Bid sheet 200. Contractor United States Wood Preserving Company. Bid price \$5,152.40. Returned amount \$5,922.84. Excess \$770.44.

Bid sheet 202. Contractor United States Wood Preserving Company. Bid price \$5,768.25. Returned amount \$6,751.55. Excess \$983.30.

Bid sheet 203. Contractor United States Wood Preserving Company. Bid price \$2,217.20. Returned amount \$2,532.40. Excess \$315.20.

The contracts just enumerated are in number a total of ten, all of which ten were let in the fall of the year 1905 and for reasons which will hereafter be made plain I have made a footing of said ten contracts.

*Q.* Were those ten contracts all let at the same time?

*A.* Yes.

*Q.* At one letting?

*A.* No.

*Q.* How were they let at the same time?

*A.* These ten contracts were advertised and were let for the first time on the 28th day of September, 1905. The Borough President wrote to the Hon. E. M. Grout, Comptroller, on the 3rd day of October, 1905, regarding first rejection of all the bids in the case of said ten contracts.

*Q.* Will you tell us what those ten bids were. Continue as you were going, Mr. MacNeille, and give us that information in the course of your testimony.

*A.* The said last mentioned letter was especially noted by me as seemly inconsistent with a letter from Borough President Ahearn to said Comptroller Grout, dated on the 2nd day of October, 1905, which letter submitted to the Comptroller for the Comptroller's action the sureties of the lowest proposals received on September 28th, 1905, in the first letting for said ten contracts. This list submitted with said letter just mentioned included six contracts of the ten on which the United States Wood Preserving Company were the lowest bidders and four contracts on which the Franklin Contracting Company were the lowest bidders.

*Q.* And what do you say became of those ten bids?

*A.* On the same date, namely October 2nd, 1905——

*Q.* The same date as what?

*A.* As the date of the letter from the Borough President submitting said lowest bidders to the Comptroller for the Comptroller to pass on their sureties.

*Q.* I understood you to say that was September 28th, 1905.

*A.* You misunderstood me. I thing the record will bear me out. On said same date, namely October 2nd, 1905, the Borough President wrote to the said Comptroller Grout informing him that he could return the unsuccessful

ful bidders in the letting of said ten contracts their deposits, said letter being written at the same time as the letters submitting the names of the successful bidders to said Comptroller for him to examine their sureties.

*Q.* And four of those successful bidders, or at least the successful bidder on four of those contracts were the Franklin Contracting Company?

*A.* Yes.

*Q.* Continue.

*A.* A new letting for these ten contracts was held by the Borough President on the 17th day of October, 1905, on which date all of said ten contracts were let and all of said ten contracts were awarded and let to the United States Wood Preserving Company.

*Q.* Now, did you note the amounts bid in the case of the first letting, the amounts bid in the case of the second letting, and finally the amounts returned for payment by the city and did you make a comparison of those amounts?

*A.* I did mentally and I have made a comparison of the amounts in the case of the second letting, namely, the amounts bid by unsuccessful bidders compared with the amounts bid by the successful bidder in each case, namely, the United States Wood Preserving Company, and thirdly, the amount in total of the payments by the Borough President to the said successful bidder, but I haven't with me a detailed comparison of the amount of the bids at the first letting as compared in detail with the amounts of the bids at the second letting, although I made a mental investigation and some notes on same.

*Q.* Will you give us a detailed statement of those figures which you have with you.

*A.* I will do so. These are contracts let in 1905 for wood block payments on concrete, and I will give in each case the names of the contractors bidding, the various unit prices bid by them, the net amount of their bids — by net I mean having subtracted amounts due from the contractor to the city for old pavement removed by the contractor, and the net amount allowed or paid to the suc-



cessful contractor,—and finally the description of the pavement, that is, its location.

*Q.* I want to clear up those ten contracts that were relet and then take up the others later. Will you please take up just those ten contracts and give a detailed statement in the case of each one of those ten.

*A.* I will do so. Contract ledger, 1905, folio 198, bid sheet 198. Contractors Franklin Contracting Company, Republic Construction Company, United States Wood Preserving Company.

Price in dollars per square yard of wood block pavement laid in order, \$3, \$2.90, \$2.85.

Price per square yard in cents for old stone pavement removed by contractor and paid for to city in order, 14 cents, 13 cents, 17 cents.

Price per cubic yard of concrete, in dollars, as laid under wood block pavement for foundation, in order, \$6.25, \$6.20, \$6.00.

Price per lineal foot of new curb in order, \$1.95 cents, 95 cents.

Price per lineal foot of old curb in cents, in order, 50 cents, 34 cents, 35 cents.

Price per noiseless water manhole cover, in dollars, in order, \$20, \$15, \$15.

Price per noiseless sewer manhole cover, in dollars, in order, \$20, \$15, \$15.

Net amount of bid—that is gross amount of bid less total amount to be paid by contractor to City, for old pavement removed, in order, \$31,024.62, \$30,144.14, \$29,195.06. The last named amount was the accepted bid, the successful contractor being the United States Wood Preserving Company, and the net amount allowed to said contractor and paid by the Borough President is \$34,953.

The pavement is that laid on Battery Place from Broadway to West Street. The bid sheet is number 198, for the year 1905.

*Q.* And you say that these figures are taken from the second letting of the contract?

*A.* Yes.

*Q.* And will you again state the amount that was actually paid to the contractor?

*A.* Net amount paid to contractor as returned, \$34,953.

*Q.* (Commissioner MITCHEL shows paper to witness.)

*A.* Which is different from, the gross amount which is stated there, which I have taken pains to emphasise. I would state, Mr. Commissioner, in this connection, that I found numerous errors in the contract ledger for the year 1905, in this connection, where column headed "amount retained" contained the amount due to the City from the contractor and was not the amount retained by the City, but in the figures I have just quoted in detail for this bid sheet the figures are the net amount, while in the statement which you have and to which I referred in the first part of my testimony the figures are for the gross amount. The amount of the excess by either method of calculation, either comparing gross amount earned with gross amount of bid, or net amount returned and due to contractor from City, with net amount of bid, is small. In other words, you will get practically in the aggregate for the said ten contracts the same total excess.

*Q.* Mr. MacNeille, how does the net amount returned in the case of the contract to which you have just testified, compare with the other bids which were rejected, being higher than the bid of the United States Wood Preserving Company?

*A.* It is largely in excess of the net amount of the bids of the two unsuccessful bidders.

*Q.* Then, the net amount paid by the City was in excess of the net amounts of the higher bids, is that correct?

*A.* It is, and the excess is large in each case.

*Q.* Will you go on to the next contract?

*A.* Bid sheet 193, contractors bidding, Franklin Contracting Company, Republic Construction Company, United States Wood Preserving Company.

Bid price per square yard of pavement, in order, \$3.29, \$3.20, \$3.17.

Bid prices per square yard of old stone pavement to be paid by contractor to City, as removed, in cents, in order, 14 cents, 13 cents, 15 cents.

Bid prices per cubic yard of concrete laid as foundation for wood block pavement, in order, \$6.25, \$6.40, \$6.

Price per lineal foot of new curb, in order, \$1, 95 cents, 95 cents.

Prices per lineal foot of old curb, in order, 50 cents, 34 cents, 35 cents.

Price per square yard old asphalt pavement, in cents, in order, 65 cents, 75 cents, 60 cents.

Price per noiseless water manhole cover, in dollars, in order, \$20, \$18, \$18.

Price per noiseless sewer manhole cover, in dollars, in order, \$20, \$18, \$18.

Net amount of bid for each contractor bidding, in order, \$138,503.40, \$136,652.13, \$132,430.38.

The last named amount was the accepted bid, the successful bidder being the United States Wood Preserving Company, to which company the net amount allowed and paid by the Borough President was \$135,292.60. The pavement in question was that laid on West Broadway from Dey Street to West Fourth Street, including Greenwich Street from Dey to Vesey Street.

*Q.* Can you tell us how that net returned amount paid to the United States Wood Preserving Company compares with the bids of the unsuccessful bidders?

A. It is less.

Q. Will you take the next contract please, Mr. MacNeille?

A. Bid sheet 201, names of contractors bidding, Franklin Contracting Company, Republic Construction Company, United States Wood Preserving Company.

Price per square yard of pavement, in order, \$3, \$2.90, \$2.88.

Price per square yard old stone pavement removed, in order, 14 cents, 13 cents, 17 cents.

Price per cubic yard of concrete, in dollars, as laid under wood block pavement for foundation, in order, \$6.25, \$6.20, \$6.

Price per lineal foot of new curb, in order, \$1, 95 cents, 95 cents.

Price per lineal foot of old curb, in order, 50 cents, 34 cents, 35 cents.

Price per noiseless water manhole cover, in order, \$20, \$15, \$15.

Price per noiseless sewer manhole cover, in order, \$20, \$15, \$15.

Net amount of bid for each contractor bidding in order, \$23,720, \$22,845.20, \$22,393.50.

The last named amount being the accepted bid, the contract being awarded to the United States Wood Preserving Company, to which company the total net amount allowed and paid by the Borough President for said contract was \$29,424.42.

The pavement in question was that laid on Park Place from Broadway to West Street.

Q. How does that net returned amount paid by the City to the United States Wood Preserving Company

compare with the amounts bid by the unsuccessful bidders?

A. It is very largely in excess of the net amounts of the bids of both the unsuccessful bidders.

Q. Then, the amount paid by the City to the United States Wood Preserving Company in this case was greater than the amounts of the higher bids at the bidding?

A. It was and was largely in excess of said higher amounts of unsuccessful bidders.

Q. Will you take the next contract, please?

A. 1905, bid sheet 204, names of contractors bidding, in order, Franklin Contracting Company, Republic Construction Company, United States Wood Preserving Company.

Price bid per square yard of pavement, in order, \$3.29, \$3.20, \$3.08.

Price per square yard old stone pavement removed, in order, 14 cents, 13 cents, 10 cents.

Price per cubic yard of concrete, in order, \$6.25, \$6.40, \$6.

Price per lineal foot new curb, in order, \$1.05, 95 cents, \$1.

Price per lineal foot old curb, 55 cents, 34 cents, 50 cents.

Price per noiseless water manhole cover, in order, \$20, \$18, \$18.

Price per noiseless sewer manhole cover, in order, \$20, \$18, \$18.

Net amount bid by each contractor, in order, \$61,720.25, \$60,677.70, \$58,556.

The last named amount was the accepted bid, the contract was awarded to the United States Wood Preserving Company, to which company the Borough President

allowed for said contract and paid net amount, \$62,-  
\$38.78.

The pavement in question was that laid on Broadway from Vesey Street to Battery Place.

*Q.* Will you tell us how that net amount paid to the United States Wood Preserving Company compares with the bids submitted by the unsuccessful higher bidders?

*A.* It is largely in excess of the net amounts bid by the two unsuccessful bidders.

*Q.* Then, in this case the amount paid to the United States Wood Preserving Company under this contract was greater than the amounts bid by the higher bidders, is that correct?

*A.* It is correct, and it was so, and is largely in excess of said amounts bid by unsuccessful bidders.

*Q.* Will you take up the next contract?

*A.* 1905, bid sheet 194, names of contractors bidding Franklin Contracting Company, Republic Construction Company, United States Wood Preserving Company.

The price per square yard of wood block pavements, in order, \$3, \$2.90, \$2.48.

Price per square yard of old stone pavement removed by contractor and paid by City, in order, 14 cents, 13 cents, 17 cents.

Price per cubic yard of concrete, \$6.25, \$6.20, \$6.

Price per lineal foot of new curb, in order, \$1, 95 cents, 95 cents.

Price per lineal foot of old curb, in order, 50 cents, 34 cents, 35 cents.

Price per noiseless water manhole cover, in order, \$20, \$15, \$15.

Price per noiseless sewer manhole cover, in order, \$20, \$15, \$15.

Net amount bid by each contractor, in order, \$3,653.30, \$3,515.60, \$3,132.30.

The last named amount was the accepted bid, the contract was awarded to the United States Wood Preserving Company, to which company the Borough President paid and allowed a net amount of \$3,502.50.

The pavement in question was that laid on Cedar Street from 150 feet east of William Street to Pearl Street.

*Q.* Will you tell us how the net amount allowed and paid in this case to the United States Wood Preserving Company compares with the amounts bid by the unsuccessful and higher bidders?

*A.* It was practically identical with the amount of the unsuccessful bidder, the Republic Construction Company, and was a small amount less than the amount of the other unsuccessful bidder, the Franklin Contracting Company.

*Q.* Take up the next contract.

*A.* 1905, bid sheet 197, names of contractors bidding, Franklin Contracting Company, Republic Construction Company, United States Wood Preserving Company.

Bid price per square yard of pavement, in order, \$2.90, \$2.90, \$2.78.

Bid price per square yard old stone pavement removed, in order, 15 cents, 13 cents, 17 cents.

Price per cubic yard of concrete, in order, \$6.25, \$6.20, \$6.

Bid prices per lineal foot new curb, in order, 95 cents, 95 cents, 98 cents.

Price per lineal foot old curb, in order, 35 cents, 34 cents, 36 cents.

Bid prices per noiseless water manhole cover, in order, \$15, \$15, \$15.

Prices per noiseless sewer manhole cover, in order, \$15, \$15, \$15.

Net amount bid by each contractor in order, \$9,485.75, \$9,516.20, \$9,087.20.

The last named amount was the accepted bid. The contract was awarded to the United States Wood Preserving Company, to which company the Borough President allowed and paid a net amount of \$10,817.74.

The pavement in question was that laid on Dey Street from Greenwich Street to West Street.

*Q.* Will you tell us how the net amount paid and allowed to the United States Wood Preserving Company in this case compares with the amounts bid by the unsuccessful and higher bidders.

*A.* It is largely in excess of said amounts bid by the successful bidders.

*Q.* Then, in this case the amount paid to the United States Wood Preserving Company was in excess of the amount bid by the highest bidder, is that correct?

*A.* It is correct and it was largely in excess of said highest amount bid by the unsuccessful bidders.

*Q.* Take up the next contract.

*A.* 1905, bid sheet 199, names of contractors bidding, Franklin Contracting Company, Republic Construction Company, and the United States Wood Preserving Company.

Bid prices per square yard of pavement, \$2.90, \$3.20, \$2.90.

Bid prices per square yard for old stone pavement removed by contractor and paid for to the City, in order, 15 cents, 13 cents, 17 cents.

Price per cubic yard of concrete, in dollars, as laid under wood block pavement for foundation, in order, \$6.25, \$6.40, \$6.



Price per lineal foot of new curb, in order, 95 cents, 95 cents, 98 cents.

Price per lineal foot of old curb, in order, 35 cents, 34 cents, 36 cents.

Bid prices per noiseless water manhole cover, in order, \$15, \$18, \$15.

Bid prices per noiseless sewer manhole cover, in order, \$15, \$18, \$15.

Net amount bid by each contractor, in order, \$18,435.75, \$20,061.50, \$18,225.20.

The last named amount was the accepted bid. The contract was awarded to the United States Wood Preserving Company, to which the Borough President allowed and paid a net total amount of \$20,843.19.

The pavement in question was that laid on Greenwich Street from Vesey to Chambers Street.

*Q.* Will you tell us how the net amount so allowed and paid to the United States Wood Preserving Company in the case of this contract compares with the amounts bid by the unsuccessful and higher bidders?

*A.* It is largely in excess of the bid of one of the unsuccessful bidders, namely, the Republic Construction Company, and it is very largely in excess of the net amount of the bid of the other unsuccessful bidder, namely, the Franklin Contracting Company.

*Q.* Take up the next contract.

*A.* 1905, bid sheet 200, names of contractors bidding, Franklin Contracting Company, Republic Construction Company, United States Wood Preserving Company.

Bid prices per square yard of pavement, in order, \$2.90, \$2.90, \$2.80.

Bid prices per square yard of old stone pavement removed, in order, 15 cents, 13 cents, 17 cents.

Bid prices per cubic yard of concrete, in order, \$6.25, \$6.20, \$6.00.

Bid prices per lineal foot, new curb, in order, 95 cents, 95 cents, 98 cents.

Bid prices per lineal foot old curb, in order, 35 cents, 34 cents, 36 cents.

Bid prices per noiseless water manhole cover, in order, \$15, \$15, \$15.

Bid prices per noiseless sewer manhole cover, in order, \$15, \$15, \$15.

Net amount bid by each contractor in order, \$5,121., \$5,316, \$4,939.90.

The last named amount was the accepted bid, the contract was awarded to the United States Wood Preserving Company, to which Company the Borough President allowed a net amount which was paid of \$5,704.48.

The pavement in question was that laid on Old Slip from Front street to Water Street.

*Q.* Will you tell us how the net amount allowed and paid to the United States Wood Preserving Company in this case compares with the amounts bid by the unsuccessful and higher bidders?

*A.* It is largely in excess of the net amounts bid by both unsuccessful bidders.

*Q.* Then, in this case the amount paid to the United States Wood Preserving Company was greater than the amount of the higher bid, is that correct?

*A.* It is correct and it was greater.

*Q.* Take up the next contract.

*A.* 1905, bid sheet 202, names of contractors bidding, Franklin Contracting Company, Republic Construction Company, United States Wood Preserving Company.

Price per square yard of wood block pavement laid, in order, \$3, \$2.90, \$2.58.

Bid price per square yard for old stone pavement removed, 14 cents, 13 cents, 17 cents.

Bid prices per cubic yard of concrete, \$6.25, \$6.20, \$6.

Bid price per lineal foot of new curb, in order, \$1.00, 95 cents, 95 cents.

Bid prices per lineal foot of old curb, 50 cents, 34 cents, 35 cents.

Price per noiseless water manhole cover, \$20, \$15, \$15.

Price per noiseless sewer man hole cover, in order \$20, \$20, \$15, \$15.

Net amount bid by each contractor, in order, \$6,326.50, \$6,124.45, \$5,487.75.

The last named amount was the accepted bid, the contract was awarded to the United States Wood Preserving Company, which company the Borough President allowed a net amount, which was paid, of \$6,478.33.

The pavement in question was that laid on Worth Street from Broadway to Church Street.

*Q.* Will you tell us how the amount allowed and paid the United States Wood Preserving Company in the case of this contract compares with the amounts bid by the unsuccessful and higher bidders?

*A.* It is in excess of the amounts bid by both the unsuccessful bidders.

*Q.* Then in this case the amount paid to the United States Wood Preserving Company was higher than the amount of the bids of both the unsuccessful and higher bidders?

*A.* That is so, and it was greater.

*Q.* Take the next.

*A.* 1905, bid sheet 203, names of contractors bidding, Franklin Contracting Company, Republic Construction Company, United States Wood Preserving Company.

Bid prices per square yard of wood block pavement laid, in order, \$2.90, \$2.90, \$2.48.

Bid prices per square yard old stone pavement removed, in order, 15 cents, 13 cents, 17 cents.

Bid prices per cubic yard concrete, in order, \$6.25, \$6.20, \$6.

Bid prices per noiseless water manhole cover, in order, \$15, \$15, \$15.

Bid prices per noiseless sewer manhole cover, in order, \$15, \$15, \$15.

Net amount bid by each contractor, in order, \$2,410, \$2,418.80, \$2,180.40.

The last named amount was the accepted bid, the contract was awarded by the Borough President to the United States Wood Preserving Company, to which company the amount allowed and paid was \$2,426.70.

The pavement in question was that laid on Beekman Street from east side of Nassau Street to Park Row.

*Q.* Will you tell us how the net amount allowed and paid the United States Wood Preserving Company in this case compares with the amounts bid by the unsuccessful and higher bidders?

*A.* It is in excess of the net amounts bid by both the unsuccessful bidders.

*Q.* Then in this case the amount paid to the United States Wood Preserving Company was greater than the amount of the highest bid, is that right?

*A.* That is correct, and it was greater.

*Q.* Do I understand the ten contracts concerning which you have just testified were the ten contracts let on September 28th, rejected on October 3rd, and relet on October 17th, 1905?

*A.* They were as stated by you.

*Q.* Were there any other contracts awarded to the Unit-

ed States Wood Preserving Company in the case of which you found excesses?

A. There were other contracts in which I found considerable excess in payments over bid prices.

Q. Will you give us the result of that examination in the case of those contracts?

A. 1905, bid sheet 106. Names of contractors bidding, Franklin Contracting Company, Eppinger & Russell Company, Republic Construction Company, United States Wood Preserving Company.

Bid prices per square yard of pavement, in order, \$2.88, \$2.90, \$2.95, \$2.60.

Bid prices per square yard old stone pavement removed, in order, 20 cents, 18 cents, 22 cents, 20 cents.

Bid prices per cubic yard of concrete, in order, \$6.75, \$6.25, \$6.50, \$6.40.

Bid prices per lineal foot new curb, in order, 96 cents, 92 cents, 98 cents, 94 cents.

Bid prices per lineal foot of old curb, in order, 35 cents, 35 cents, 35 cents, 32 cents.

Bid prices per noiseless water manhole cover, in order, \$15, \$15, \$15, \$15.

Bid prices per noiseless sewer manhole cover, in order, \$15, \$15, \$15, \$15.

Net amount bid by each contractor, in order, \$24,445.20, \$24,088.80, \$24,548.20, \$22,477.40.

The last named amount was the accepted bid, the contract was awarded by the Borough President to the United States Wood Preserving Company, to which company was allowed and paid a net amount of \$22,854.11, which was in excess of the bid price accepted.

The pavement in question was that laid on Barclay Street from Broadway to West Street.

*Q.* How does the net amount allowed and paid to the United States Wood Preserving Company in this case compare with the amounts bid by the unsuccessful and higher bidders?

*A.* It is less.

*Q.* Take the next contract.

*A.* 1905, bid sheet 113. Names of contractors bidding, Franklin Contracting Company, Eppinger & Russell Company, United States Wood Preserving Company, Republic Construction Company.

Bid prices per square yard of wood block pavement laid, in order, \$2.88, \$2.75, \$2.60, \$2.95.

Bid prices per square yard for old stone pavement removed, in order, 20 cents, 23 cents, 20 cents, 22 cents.

Bid prices per cubic yard of concrete, \$6.75, \$6.25, \$6.40, \$6.50.

Bid prices per lineal foot of new curb, in order, 96 cents, 92 cents, 94 cents, 98 cents.

Bid prices per lineal foot of old curb, 35 cents, 35 cents, 32 cents, 35 cents.

Bid prices per noiseless water manhole cover in order, \$15, \$15, \$15, \$15.

Bid prices noiseless sewer manhole cover, in order, \$15, \$15, \$15, \$15.

Net amount bid by each contractor, in order, \$78,711.70, \$74,447.50, \$72,284, which amount was the accepted bid, and finally \$79,015.20.

The contract was awarded by the Borough President to the United States Wood Preserving Company, to which company the Borough President allowed a net amount which was paid of \$77,101.04, which was in excess of the net amount of the accepted bid of said contractor to the amount of \$4,817.04.

*Q.* Mr. MacNeille, how does the net amount allowed and paid to the United States Wood Preserving Company in that case compare with the amounts bid by the unsuccessful and higher bidders?

*A.* It is less than two of the net amounts bid by two of the unsuccessful bidders, and is considerably in excess of one of the net amounts bid by one of the unsuccessful bidders.

*Q.* Will you take up the case of the next contract, Mr. MacNeille?

*A.* If I may be allowed, I would add there with the Commissioner's permission, that the bid of the Eppinger & Russell Company, a lumber concern here in New York City, who, so far as I could judge were uniformly unsuccessful in bidding for contracts for wood block pavements on concrete, was in amount, net bid, \$74,447.50, while the net amount allowed to and paid to the successful bidder, namely, the United States Wood Preserving Company, by the Borough President was \$77,101.04, which is very largely in excess of the next higher bidder to the successful bidders, and that the two bids of unsuccessful bidders, which were somewhat more than the net amount so allowed and paid to the successful bidder, was those of the Franklin Contracting Company and of the Republic Construction Company.

*Q.* Will you take up the next case?

*A.* 1905, bid sheet 109. Names of contractors bidding, Franklin Contracting Company, Eppinger & Russell, United States Wood Preserving Company, Republic Construction Company.

Bid prices per square yard of pavement, in order, \$2.88, \$2.90, \$2.70, \$2.95.

Bid prices per square yard, for old stone pavement removed, in order, 20 cents, 18 cents, 15 cents, 22 cents. Bid prices per cubic yard of concrete, in order, \$6.75, \$6.25, \$6.80, \$6.50.

Bid prices per lineal foot of new curb, in order, 96 cents, 92 cents, 94 cents, 98 cents.

Bid prices per lineal foot of old curb, in order, 35 cents, 35 cents, 32 cents, 35 cents.

Bid price per noiseless water manhole cover, in order, \$15, \$15, \$15, \$15.

Bid prices per noiseless sewer manhole cover, in order, \$15, \$5, \$15, \$15.

Net amount bid by each contractor, in order, \$30.-303.30, \$29,919.70, \$29,363, which amount was the accepted bid, and finally \$30,397.30.

The contract was awarded by the Borough President to the United States Wood Preserving Company, to which company was allowed by the Borough President and paid a net amount of \$36,093.46, which was in excess of the bid price accepted by the Borough President to the amount of a total of \$6,730.46.

The pavement in question was that on Duane Street from Broadway to West Street.

*Q.* How does the net amount allowed and paid to the United States Wood Preserving Company in this case compare with the amount bid by unsuccessful and higher bidders?

*A.* It is very largely in excess of all of the net amounts bid by each of the unsuccessful bidders.

*Q.* Then in this case the amount paid to the United States Wood Preserving Company is greater than the amount of the highest bid, is that correct?

*A.* It is correct and it was so greater to a very large amount.

*Q.* Will you take up the case of the next contract?

*A.* 1905, bid sheet 111. Names of contractors bidding, Franklin Contracting Company, Eppinger & Russell Company, United States Wood Preserving Company, Republic Construction Company.



Bid prices per square yard of wood block pavement laid, in order, \$2.88, \$2.90, \$2.75, \$2.95.

Bid prices per square yard for old stone pavement removed by contractors and paid for to city, in order, 20 cents, 18 cents, 20 cents, 22 cents.

Bid prices per cubic yard of concrete as laid under wood block pavement for foundation, in order, \$6.75, \$6.25, \$6.50, \$6.50.

Prices per lineal foot of new curb, in order, 96 cents, 92 cents, 94 cents, 98 cents.

Bid prices per lineal foot of old curb, in order, 35 cents, 35 cents, 32 cents, 38 cents.

Bid prices per noiseless water manhole cover, in order, \$15, \$15, \$15, \$15.

Bid prices noiseless sewer manhole cover, in order, \$15, \$15, \$15, \$15.

Net amount bid by each contractor, in order, \$37,264.60, \$36,747.20, \$35,681.40, which amount was the accepted bid; finally, \$37,404.30.

The contract was awarded by the Borough President to the United States Wood Preserving Company, to which company was allowed and paid by the Borough President a net amount total of \$45,882.93, which was in excess of the bid prices accepted from said contractor by said Borough President to the total amount of \$10,201.53.

The pavement in question was that laid on Greenwich Street from Battery Place to Dey Street.

*Q.* How does the net amount allowed and paid in this case to the United States Wood Preserving Company compare with the amounts bid by the unsuccessful and higher bidders?

*A.* It is very largely in excess of the net amounts bid by the unsuccessful bidders, being nearly 33 per cent.

more, as paid, than the amounts of the unsuccessful bidders.

*Q.* Does that mean that it was nearly 33 per cent. more than the amount bid by the highest bidder?

*A.* It does, in round figures. The table speaks for itself.

*Q.* Will you take up the case of the next contract?

*A.* 1905, bid sheet 114, names of contractors bidding, Franklin Contracting Company, Eppinger & Russell, United States Wood Preserving Company, Republic Construction Company.

Bid prices per square yard of wood block pavement laid, in order, \$2.88, \$2.90, \$2.70, \$2.95.

Bid prices per square yard for old stone pavement removed by contractor and paid for to city, in order, 20 cents, 18 cents, 20 cents, 22 cents.

Bid prices per cubic yard of concrete as laid under wood block pavement for foundation, in order, \$6.75, \$6.25, \$6.40, \$6.50.

Bid prices per lineal foot of new curb, in order, 96 cents, 92 cents, 94 cents, 98 cents.

Bid prices per lineal foot of old curb, in order, 35 cents, 35 cents, 32 cents, 35 cents.

Bid prices per noiseless water manhole cover, in order, \$15, \$15, \$15, \$15.

Bid prices per noiseless sewer manhole cover, in order, \$15, \$15, \$15, \$15.

Net amount bid by each contractor, in order, \$11,439.70, \$11,262.30, \$10,796.60, \$11,489.20.

The amount bid of \$10,796.60 was the accepted bid, the contract was awarded by the Borough President to the United States Wood Preserving Company, to which company said Borough President allowed and paid a net amount of \$11,193.67, which was in excess of the net

amount of the bid price accepted from said contractor. The pavement in question was that laid on West Tenth Street from Hudson Street to West Street.

*Q.* How does the net amount paid to the United States Wood Preserving Company in this case compare with the amounts bid by the unsuccessful and higher bidders?

*A.* It is less than the amount bid by the unsuccessful bidders by a small difference.

*Q.* Will you take up the case of the next contract?

*A.* Mr. Commissioner, I have only in summary form the figures for the remaining two contracts, which I will give as follows:

1904, bid sheet 139. The amounts are gross. Bid price accepted from United States Wood Preserving Company, to which company the contract was awarded by the Borough President, \$6,085.40. Returned amount allowed by the Borough President and paid to said company, \$6,546.16. Excess of the returned amount over bid price accepted, \$460.76.

The last one, 1904, bid sheet 55, the contract was awarded by the Borough President to the United States Wood Preserving Company, the bid price accepted by the Borough President from said company was \$24,177. The returned amount allowed by the Borough President to said company was \$24,853. The excess of the returned amount over the bid price accepted was \$676.

Mr. Commissioner, I have summarized the contracts let to the United States Wood Preserving Company by the Borough President, the total amount of the gross bid prices accepted from said contracting company by the Borough President, the total gross of the returned amounts allowed by the Borough President to said contracting company for said contracts, and the total excess of the returned amounts last mentioned over the bid prices accepted last mentioned.

*Q.* Before giving us those figures, will you please tell us what the total number of the contracts concerning which you have testified is ?

*A.* Seventeen, and I have referred to two other contracts let in 1904, which I have not made detailed notes about, because I did not consider it of sufficient importance so to do.

*Q.* Were those nineteen contracts, these seventeen and the other two, the only contracts awarded to the United States Wood Preserving Company during the years 1904, 1905 and 1906 ?

*A.* They were the only contracts awarded by the Borough President to the United States Wood Preserving Company for the years 1904 and 1905, but there were four other contracts let to said company by the Borough President in the year 1906, which have not yet, according to the contract ledger in the office of the Commissioner of Public Works, been completed, and therefore I cannot say as to what excesses there are or what excesses may be developed in the case of the 1906 contracts.

*Q.* In the case of the two contracts which you say you examined but did not make notes upon, can you say whether or not there were excesses in the case of those two contracts ?

*A.* I am quite positive that in the case of said last mentioned two contracts the returned amounts were in excess of the bid prices, but they were small amounts, and I have not detailed notes here regarding same, although I have notes regarding the contracts themselves.

*Q.* As to the seventeen contracts concerning which you have testified, will you please give us the summary of bid prices, returned amount and excesses, which you say you have prepared ?

*A.* I will do so, but before answering I wish to state that so far as my knowledge goes there has never been let by the Borough President to the United States Wood Preserving Company any contract in which the net amount allowed by the Borough President to the contracting com-

pany was not in excess of the bid price made by the contracting company and accepted when the contract was let to said company by the Borough President.

The totals asked for are as follows. Seventeen contracts let by the Borough President to the United States Wood Preserving Company, during the years 1904 (two contracts in said year), and during the year 1905 (fifteen contracts in 1905).

Gross amount of bids accepted, total, \$503,508.88.

Gross amount returned and allowed by Borough President on said contracts, total, \$553,408.32.

Gross excess of returned amounts allowed by Borough President for said last mentioned contracts over bid prices for said contracts, total, \$49,899.44.

*Q.* Mr. McNeille, have you reckoned the percentage of bid price of the total of these seventeen contracts which the total of excess for the seventeen contracts bears?

*A.* I have not reckoned it, but by inspection I would state that it is about ten per cent. excess, that the returned amounts were larger than the bid prices by that percentage, as an approximate figure from a mental calculation. It is so close to ten per cent. as to be for practical purposes such figure.

*Q.* Mr. McNeille, did you notice in the case of these seventeen contracts with the United States Wood Preserving Company whether the excesses allowed occurred in the case of any particular item of the work?

*A.* I did so notice, and the particular item of the work was the concrete which was laid as foundation by the United States Wood Preserving Company for the wood block pavement laid by them, although there were several and important and large excesses in other items of the work than the concrete.

*Q.* Do I understand you to mean that the chief excesses occurred in this item of concrete?

A. As regards frequency, yes, and I should judge, although I have not calculated it in detail, as far as amount in dollars is concerned, also, yes. I would state in further answer to the question, Mr. Commissioner, that in every one of the ten contracts let by the Borough President to the United States Wood Preserving Company on the 17th day of October, 1905, the returned amount paid or payable for concrete on said ten contracts was found by me in every case to be in excess of the bid amount, while I found in the case of other wood paving contracts let to other contractors than the United States Wood Preserving Company, that such excess for concrete allowed and paid for over the returned amount did not develop and did not exist in the records, except for two contracts let to the Franklin Contracting Company, 1905, bid sheets Nos. 107 and 110.

Q. Did you find any other contracts, other than those which you have testified to, in which excesses occurred over bid amounts?

A. I did find contracts and quite a number of them in which the returned amounts allowed and paid by or payable by the Borough President were in excess of the bid prices accepted.

Q. Did you prepare a statement of the excess in returned amounts over the bid amounts in the case of those contracts?

A. Yes.

Q. Will you tell us what you found in that case?

A. I have made a large number of detailed notes regarding both the contracts already testified to and what I shall now refer to is only in summary form.

1904, bid sheet 13, contract awarded to Pioneer Contracting Company. Bid price accepted \$26,564. Returned amount allowed \$27,424.90. Excess of returned amount allowed, payable or paid by the Borough President to the contractor of the returned amount over bid price, \$860.90.

1904, bid sheet 15, contract awarded to A. F. McGuinness. Bid price \$29,463.50. Returned amount \$31,714.94. Excess \$2,251.44.

1904, bid sheet 28, contract awarded to A. Kelly. Bid price \$11,235. Returned amount \$13,332.62. Excess \$2,097.62.

1905, bid sheet 27, contract awarded to Hahn & O'Keilly. Bid price \$34,619. Returned amount \$39,119. Excess \$4,500.

1905, bid sheet 29, contract awarded to M. J. O'Brien. Bid price \$3,325. Returned amount \$4,225. Excess \$900.

1904, bid sheet 51, contract awarded to J. Culver Voorhees. Bid price \$20,436.80. Returned amount \$34,154.74. Excess \$13,717.94.

1905, bid sheet 51, Harlem Contracting Company received the contract. Bid price \$45,586. Returned amount \$47,270.38. Excess \$1,684.38.

1905, bid sheet 60, contract awarded to Terrence A. Smith. Bid price \$2,860. Returned amount \$3,738.50. Excess \$878.50.

1905, bid sheet 90, Cunningham & Kearns received the contract. Bid price \$7,246. Returned amount \$8,920.07. Excess \$1,674.07.

1904, bid sheet 110, New York & Bermuda Company received the contract. Bid price \$14,596.60. Returned amount \$16,808.72. Excess \$2,212.12.

1904, bid sheet 123, contract was awarded to the United States Venezuela Company. Bid price \$24,018.90. Returned amount \$27,987.42. Excess \$3,968.52.

1905, bid sheet 100, contract awarded to M. Marrone. Bid price \$6,463.75. Returned amount \$7,045.77. Excess \$582.02.

1905, bid sheet 102, contract awarded to Terrence A. Smith. Bid price \$3,346. Returned amount \$3,822. Excess \$476.

1904, bid sheet 141, contract awarded to the Asphalt Construction Company. Bid price \$7,162. Returned amount \$7,454.48. Excess \$292.48.

1904, bid sheet 150, contract awarded to the New York & Bermuda Company. Bid price \$7,759.40. Returned amount \$8,077.94. Excess \$318.54.

1905, bid sheet 107, contract awarded to the Franklin Contracting Company. Bid price \$21,128. Returned amount \$22,141.46. Excess \$1,013.46.

1905, bid sheet 141, contract awarded to Troy Public Works Company. Bid price \$3,530. Returned amount \$3,948.02. Excess \$418.02.

1905, bid sheet 190, contract awarded to D. McCarthy. Bid price \$5,357.50. Payments to date \$5,800. Excess \$442.50.

1905, bid sheet 192, contract awarded to Harlem Contracting Company. Bid price \$3,486.40. Returned amount \$4,299.54. Excess \$813.14.

1905, bid sheet 216, contract awarded to Vulcanite Paving Company. Bid price \$20,899.95. Returned amount \$22,349.84. Excess \$1,449.89.

1906, bid sheet 12, contract awarded to Harlem Contracting Company. Bid price \$4,336.04. Returned amount \$4,891.05. Excess \$554.65.

1906, bid sheet 104, contract awarded to D. McCarthy. Bid price \$2,389.30. Returned amount \$2,773.29. Excess \$383.99.

1906, bid sheet 107, contract awarded to Harlem Contracting Company. Bid price \$102,746.14. Returned amount \$110,486.92. Excess \$7,740.78.



1906, bid sheet 145, contract awarded to the Harlem Contracting Company. Bid price \$8,519. Returned amount \$8,857.54. Excess \$338.54.

*Q.* Mr. McNeille, have you reckoned the totals of bid prices, returned amount and excess over bid prices for the contracts concerning which you have just testified and the seventeen contracts awarded to the United States Wood Preserving Company, concerning which you testified?

*A.* Yes.

*Q.* Will you give us the total for all these contracts in which you found excesses over bid prices?

*A.* The total amount gross of the bid amounts or prices accepted for all of the contracts testified to this morning as let to the United States Wood Preserving Company and to various other contractors, as testified to just above, is \$920,583.52.

*Q.* Now give us the total of returned amounts on those same contracts?

*A.* \$1,020,052.46 gross.

*Q.* Now give us the total of excess over bid price for the same contracts.

*A.* \$99,468.94 gross.

*Q.* Mr. McNeille, have you reckoned the percentage that this last named figure is of the sum of \$920,583.52 which you have just testified is the total of bid prices on these contracts?

*A.* I have not so reckoned the excess, but I can readily do so.

*Q.* Will you please make that calculation now?

*A.* It is over ten per cent.

*Q.* Will you make the exact calculation?

*A.* I will do so. I have so reckoned as requested. The per cent. which the excess allowed in returned amounts over accepted bid prices gross is, and I find the per cent. to be 10.8 per cent., or in round figures 11 per cent.

The Commission directs the stenographer to note that Section 419 of the Greater New York Charter provides

in part as follows:--the title of the section is "Contracts for work or supplies." The second paragraph of the section reads as follows:

"In and contract for work or supplies made hereunder, there may be inserted, in the discretion of the borough president or head of department making such contract a provision that additional work may be done or supplies furnished for the purpose of completing such contract, at an expense not exceeding five per centum of the amount of such contract, if such additional work or supply shall be ordered by such borough president or head of department."

The stenographer will further note that Exhibit No. 112, which is, as testified to by witness Benjamin F. Welton on page 469 of the record, the form of contract and specifications for the letting of wood block pavement in this Borough as used at the present time by the Bureau of Highways, contains the following provisions:

In the contract on page 10, at subdivision E: "This contract, and the specifications herein contained, and the plans hereinafter referred to, may be modified and changed from time to time as may previously be agreed to in writing between the parties hereto, in a manner not materially affecting the substance hereof, or increasing materially the price to be paid, in order to carry out and complete more fully and perfectly the work herein agreed to be done and performed.

"No claim for additional work or materials shall be made by or allowed to the contractor, unless before the performance of such work the President shall have first authorized the same in writing, and the price or prices to be paid therefor shall first have been agreed upon in writing between the President and the contractor, and the same shall have been done or furnished under a written order from the President, given before the performance of such work or the furnishing of such material.

"The aggregate price to be paid for such additional work or materials so authorized or ordered shall not exceed five per cent. of the contract price or total cost of the work and materials.

"All claims for additional work or materials in any month shall be made to the Engineer, in writing, before the 15th day of the following month, and failing to make such claim within the time required, the rights of the contractor to pay for such additional work or materials shall be deemed to have been waived and forfeited."

Adjourned to Wednesday, May 1st, 1907, at 10.30 A. M.

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NEW YORK, May 1, 1907.

Met pursuant to adjournment.

Present—Commissioners HERTLE and MITCHEL; and Mr. BRUERE.

JOHN R. MACNEILLE, recalled for further examination, testified as follows:

*Examined* by Commissioner MITCHEL:

*Q.* Mr. MacNeille, you testified yesterday to contracts for wood block paving where the returned amounts exceeded the engineer's estimates. Did you find any such contracts where the returned amounts equaled or were less than the engineer's estimates?

*A.* I found certain cases where the returned amounts were less than the bid amounts, that is, the engineer's estimates on which the contracts were let.

*Q.* Will you tell us about those cases which you found?

*A.* In the case of contracts for wood block pavements on concrete, some of the cases where the net amount allowed, that is, the returned amount payable or paid to the

contractor by the Borough President, was less than the bid amount, that is the engineer's estimates, are:

1905, bid sheet 105, the contract was awarded to Eppinger & Russell Company; the net amount of whose bid was \$28,899. The Borough President paid to said company for said contract a total net amount allowed of \$28,372.25, which is, in round figures \$500, less than the bid amount. The pavement in question was that laid on Chambers Street from Broadway to West Street.

Another case was that of bid sheet, 1905, No. 108, the contract was awarded by the Borough President to the Franklin Contracting Company, the net amount of whose bid was \$12,119.20. The net amount allowed to the contractor by the Borough President for this contract was \$11,750.70, which is quite a little less than the bid amount on which the contract was awarded. The pavement in question was that laid on Liberty Street from Broadway to West Street.

Another case was that of 1905, bid sheet 112, the contract was awarded by the Borough President to the Franklin Contracting Company, the net amount of whose bid was \$2,446.30. The net amount allowed by the Borough President to the contractor for this contract was \$2,345.54. The pavement in question was that laid on Jefferson Street from East Broadway to Henry Street.

Those are the only instances that I noted in the case of the wood block pavements on concrete.

*Q.* Mr. MacNeille, did you find any case of a contract awarded to the United States Wood Preserving Company in which the returned amount was not in excess of the bid amount?

*A.* I did not.

*Q.* Then all the cases in which it was found possible by the engineers to correctly estimate the amount were in the cases of contractors other than the United States Wood Preserving Company, is that correct?

A. Apparently it is correct, although Mr. Commissioner it is possible that the engineer's estimates may have been correct and returned amounts incorrect.

Q. In repaving a street already paved with stone block, where wood block is to be used as the new pavement, what is the practice of the Department as to the disposal of the stone block with which the street is paved?

A. In most of the cases apparently to sell to the contractor, who is to lay the new pavement, the old pavement at a certain price per square yard, said pavement to be removed by the contractor, and in the letting of the contract the number of square yards of old pavement to be removed is stated as well as the number of square yards of new pavement to be laid, and both items are bid upon in the letting.

Q. Does the contractor pay the City at a given rate per square yard for that old stone block pavement to be removed?

A. He does in the instances I have just referred to.

Q. Does he submit a bid at a rate per square yard for that pavement?

A. He does, in such instances.

Q. Is that part of his general bid?

A. It is.

Q. Does it form a distinct item in that general bid?

A. It does.

Q. Did you find any cases where the square yardage of stone block pavement removed in such a case differed in amount from the square yardage of the new pavement as laid upon the street?

A. I did, and I found quite a number of instances where there was such a difference.

Q. Was the number of square yards of stone block pavement for which the contractor paid the City greater or less in such cases than the amount of square yardage of new pavement laid?

A. It was less.

*Q.* Was it greater or less than the amount estimated by the engineers?

*A.* It was less than the amount estimated by the engineers.

*Q.* Then do you mean that in such cases the contractor paid the City for a less number of square yards of old stone block pavement than had been estimated by the engineers to exist there, and charged the City for a greater number of square yards of new pavement than had been estimated by the engineers to be necessary?

*A.* I do.

*Q.* Have you prepared a statement covering such cases?

*A.* I have, covering some of such cases.

*Q.* Will you give us the details of those cases?

*A.* This a table of the excess of square yardage of new pavement laid over the square yardage of old pavement removed and also over the engineer's estimates on which the contracts in question were let. All of the items given are taken from the 1905 contract ledger in the office of the Commissioner of Public Works in the Park Row Building. In each case the bid sheet and ledger folio are the same.

Folio 105, contractor Eppinger & Russell, engineer's estimate of new pavement to be laid and of old pavement to be removed, 6,900 square yards. Returned amount of square yards removed 6,418.2 square yards. Returned amount of square yards of new pavement laid, 6,904.1. Excess of new pavement laid over old pavement removed 485.9 square yards.

The figures given hereafter in this connection are in square yards and one decimal where given.

Folio 106, estimate 5,640, removed 5,078.4, new pavement laid 5,272.2, excess of pavement laid over pavement removed, 193.8.

Bid sheet 107, that is folio 107, engineer's estimate, 5,080; pavement removed, 4,838.1; new pavement laid, 4,934.1; excess new pavement over old pavement, 96.

Folio 108, estimate 3,160, removed 2,917.2; laid 3,046.3; excess 129.1.

Folio 109, estimate 7,460; removed 7,318.1; laid 7,647.6; excess 329.5; excess of new pavement over engineer's estimate 187.6.

*Q.* In the last three cases I think you have forgotten to give us the name of the contracting company.

*A.* I will have that. Folio 106, contractor United States Wood Preserving Company. Folio 107, contractor Franklin Contracting Company. Folio 108, contractor Franklin Contracting Company. Folio 109, contractor United States Wood Preserving Company.

Folio 110, estimate 8,840, removed 8,626.6, laid 8,801.8. Excess 175.2. Contractor Franklin Contracting Company.

Folio 111, contractor United States Wood Preserving Company, estimate 8,800, removed 9,545.9, laid 9,860.5. Excess 314.6. Excess of pavement laid over engineer's estimate 1,060.5. Cost of excess in new pavement laid over estimate and bid amount, \$2,916.38, returned and allowed.

Folio 112, contractor Franklin Contracting Company, estimate 640, removed 608.4, laid 627.1. Excess 18.7.

Folio 113, estimate 18,540, removed 18,036.8, laid 19,378.8. Excess 1,342.0. Excess of new pavement laid over engineer's estimate and bid amount 938.8. Cost of excess in new pavement laid over engineer's estimate and bid amount returned and allowed, \$2,180.88. Contractor United States Wood Preserving Company.

Folio 114, contractor United States Wood Preserving Company, estimate 2,540, removed 2,597.4, laid 2,659.4. Excess 62.0. Excess of pavement laid over engineer's estimate 119.4.

Folio 194, contractor United States Wood Preserving Company, estimate 780, removed 746.4, laid 754.3, excess 7.9.

Folio 197, contractor United States Wood Preserving Company, estimate 2,400, removed 2,288, laid 2,371.4, excess 83.4.

Folio 198, contractor United States Wood Preserving Company, estimate 7,992, removed 7,697.3, laid 8,199.6, excess 502.3. Excess of new pavement laid over engineer's estimate, 207.6.

Folio 199, contractor United States Wood Preserving Company, engineer's estimate 4,600, removed 4,221.3, laid 4,571.0, excess 349.7.

Folio 200, contractor United States Wood Preserving Company, estimate 1,250, removed 1,284.5, laid 1,356.5, excess 72.0. Excess in pavement laid over engineer's estimate and bid amount 106.5.

Folio 201, engineer's estimate, 6,500 square yards, removed 6,400.1, laid 6,498.7, excess 98.6.

Folio 202, contractor United States Wood Preserving Company, estimate 1,650, removed 1,607.2, laid 1,644.4, excess 37.2.

Folio 203, contractor United States Wood Preserving Company, estimate 640, removed 621.8, laid 650.0, excess 28.2.

Folio 204, contractor United States Wood Preserving Company, estimate 13,950, removed 15,651.5, laid 15,291.1, excess in new pavement laid over engineer's estimate and bid amount 1,341.1. Excess cost of new pavement laid over engineer's amount and bid amount allowed and returned \$4,130.59.

The totals of the above items are as follows:

Engineer's estimate 107,362 square yards, removed 106,503.2, square yards laid 110,468.9, excess in pave-



ment laid over pavement removed 3,965.7, excess of pavement laid over engineer's estimate 3,106.9.

*Q.* Was there any particular item of the contracts in which these excesses in wood block paving contracts particularly occurred?

*A.* Yes.

*Q.* What item was that?

*A.* As stated already, the item of concrete laid as a foundation for the wood block pavement, in addition to the items brought out just now for excess of new pavement laid over the bid amounts.

*Q.* Have you prepared a statement covering any number of contracts showing excesses in returned amounts of concrete over the estimated amounts?

*A.* I have.

*Q.* How many contracts does your examination cover in that matter?

*A.* I only had time to take off the contracts for the United States Wood Preserving Company and the ten contracts let on October 17th, 1905, by the Borough President to said company.

*Q.* Those ten contracts are the ones your tabulation covers?

*A.* Yes, as given in yesterday's testimony.

*Q.* Will you tell us what you found in the matter of concrete in the case of those ten contracts?

*A.* The following figures are excess in returned amounts allowed by the Borough President for concrete over bid amounts. They were all allowed to the United States Wood Preserving Company and were allowed on ten contracts let by the Borough President to said company on October 17th, 1905. They were taken from the 1905 contract ledger in the office of the Commissioner of Public Works in the Park Row Building. The folios given in each case are the same as the numbers of the bid sheets.

Folio 193 total cubic yards of concrete—bid amount \$4,237, total cubic yards of concrete returned allowed 4,857.6, excess in cubic yards allowed in returned amounts over bid amounts 620.6, per cent. excess 14.6, amount in dollars of excess allowed over bid amount \$3,723.60.

Folio 194, estimate 126, allowed 187.5, excess 61.5, per cent. excess 48.9, cost in dollars excess \$369.

Folio 197, estimate 337, allowed 636.3, excess allowed 299.3, per cent. excess 88.8, cost of excess \$1,795.80.

Folio 198, estimate 1,150, allowed 1,981.2, excess allowed 831.2, per cent. excess 72.3, cost of excess \$4,987.20.

Folio 200, estimate 185, allowed 289.6, excess allowed 104.6, per cent. excess 56.5, cost of excess \$627.60.

Folio 199, estimate 653, allowed 1,093.2, excess allowed 440.2, per cent. excess 67.4, cost of excess \$2,641.20.

Folio 201, estimate 316, allowed 1,493.8, excess allowed 1,177.8, per cent. excess 373, excess of cost \$7,066.80.

Folio 202, estimate 214, allowed 379.7, excess allowed 165.7, per cent. excess 77.4, cost of excess allowed \$994.20.

Folio 203, estimate 80, allowed 123.4, excess allowed 43.4, per cent. excess 54.3, excess amount allowed \$260.40.

Folio 204, estimate 2,405, allowed 2,573.8, excess allowed 168.8, per cent. excess 7.03, cost of excess allowed \$1,012.80.

The totals of the above items are as follows:

Total estimate cubic yards 9,703, total cubic yards returned allowed 13,616.1, excess allowed cubic yards 3,913.1, cost of excess amount in dollars allowed \$23,-

478.60. I have not calculated the per cent. excess in the cubic yards, but if so desired I can do so now readily.

*Q.* Please make that calculation?

*A.* I have made the calculation and the per cent. which the excess allowed in cubic yards is of the cubic yards of the original estimate and bid amount is 40.3 per cent.

*Q.* Now, Mr. MacNeille, do you say that these ten contracts are the same ten contracts concerning which you testified yesterday let first on September 28th, 1905, and of which the United States Wood Preserving Company was awarded six and other companies four?

*A.* They are, and I do say so.

*Q.* Is it correct that the bids received at that time were all rejected and the contracts relet?

*A.* It is so.

*Q.* What was the date on which they were relet?

*A.* The 17th day of October, 1905.

*Q.* And to what company were the ten awarded on that date?

*A.* United States Wood Preserving Company.

*Q.* Then on these ten contracts the United States Wood Preserving Company was allowed as excess in the single item of concrete \$23,478.60, is that correct?

*A.* It is correct, and they were so allowed an excess for concrete, amounting in the aggregate to \$23,478.60, and I would add, Mr. Commissioner, that there were other excesses for concrete allowed by the Borough President to the United States Wood Preserving Company on contracts for wood paving on concrete other than said ten just mentioned.

*Q.* Have you examined with a view to learning the comparative prices for concrete under wood block pavement and under other forms of pavement?

*A.* I have.

*Q.* As charged by contractors?

*A.* I have.

*Q.* Have you tabulated a statement showing those comparative prices?

A. I have.

Q. Will you tell us what they are?

A. The prices for concrete per cubic yard in the bids of the United States Wood Preserving Company in the case of the first letting of the ten contracts just referred to on the 28th day of September, 1905, were as high as \$6.85 per cubic yard, and as I recall it, reference being easily made to the bid sheets, some bids were as high as \$6.90, and \$6.95 per cubic yard for said concrete.

Similar prices for concrete on contracts let by the Borough President for concrete under wood block pavements, among others, are as follows:

1905, bid sheet 106, contractor United States Wood Preserving Company, price per cubic yard of concrete \$6.40.

1905, bid sheet 107, contractor Franklin Contracting Company, price \$6.40.

1905, bid sheet 108, contractor Franklin Contracting Company, price \$6.40.

1905, bid sheet 109, contractor United States Wood Preserving Company, price \$6.80.

1905, bid sheet 110, contractor Franklin Contracting Company, price \$6.40.

1905, bid sheet 111, contractor United States Wood Preserving Company, price \$6.50.

1905, bid sheet 112, contractor Franklin Contracting Company, price \$6.40.

1905, bid sheet 113, and bid sheet 114, contractor in both cases United States Wood Preserving Company, price both cases \$6.40.

1905, bid sheet 193, contractor United States Wood Preserving Company, price \$6, which is also the price in the case of the other contracts for wood paving let to

the United States Wood Preserving Company during the year 1905.

The following are some of the prices for concrete in the case of asphalt block pavements on concrete, and are representative:

1905, bid sheet 134, contractor Harlem Contracting Company, price per cubic yard of concrete \$4.

1905, bid sheet 48, contractor Harlem Contracting Company, price \$4.16.

1905, bid sheet 51, contractor Harlem Contracting Company, price \$4.

1905, bid sheet 52, contractor Harlem Contracting Company, price \$4.

In the case of the last four contracts enumerated the unsuccessful bidder was the Barbour Asphalt Paving Company in each case. Their price for concrete was in one case \$4 and the other three cases \$4.01.

The following are prices per cubic yard of concrete in the case of granite block pavements on concrete and are representative:

1905, bid sheet 43, contractor Thomas J. McLaughlin, price \$4.25. In the case of this contract Cunningham & Kearns bid a price for concrete of \$3.90, and two other bidders bid a price of \$4 each.

1905, bid sheet 44, contractor John E. Quinn, price \$4.39. In the case of this contract three other bidders who were unsuccessful bid prices of \$4. One other unsuccessful bidder bid \$3.99, and still another unsuccessful bidder bid \$3.90.

1905, bid sheet 25, contractor W. J. Fitzgerald, price \$4. In the case of this contract three other unsuccessful bidders bid a price also at \$4 in each case.

1906, bid sheet 77, contractor W. J. Fitzgerald, price \$4.

1906, bid sheet 78, contractor W. J. Fitzgerald, price \$4.

The following prices are per cubic yard of concrete in the case of sheet asphalt pavements on concrete and are representative:

1905, bid sheet 175, contractor Barbour Asphalt Paving Company, price \$3.40.

1905, bid sheet 176, contractor Barber Asphalt Paving Company, price \$3.40. In the case of this contract an unsuccessful bidder, namely, the Asphalt Construction Company, bid a price of \$4.

1906, bid sheet 17, contractor Asphalt Construction Company, price \$5. In the case of this contract the Barber Asphalt Paving Company, an unsuccessful bidder, bid a price of \$4.45.

1906, bid sheet No. 18, contractor Asphalt Construction Company, price \$5.50. In this case an unsuccessful bidder, the Barber Asphalt Paving Company, bid a price of \$3.67.

1906, bid sheet 19, contractor Asphalt Construction Company, price \$5.50. In this case the Barber Asphalt Paving Company, an unsuccessful bidder, bid a price of \$3.67.

1906, bid sheet No. 20, contractor Asphalt Construction Company, price \$5.25. In this case the Barber Asphalt Paving Company, an unsuccessful bidder, bid a price of \$3.67.

1906, bid sheet 19, contractor Asphalt Construction Company, price \$5.50. In this case the Barber Asphalt Paving Company, an unsuccessful bidder, bid a price of \$3.67.

1906, bid sheet No. 20, contractor Asphalt Construc-  
Company, price \$5.25. In this case the Barber Asphalt  
Paving Company, an unsuccessful bidder, bid a price of  
\$3.67.

1906, bid sheet 158, contractor Asphalt Construction  
Company, price \$4.10.

*Q.* Then, Mr. MacNeille, to summarize the price of  
concrete per cubic yard under wood block charged by  
contractors it is \$6.40 to \$6.80, is that correct, ranges be-  
tween \$6.40 and \$6.80 per cubic yard?

*A.* It is partially correct, although there were quite a  
number of contracts of this nature in which the price was  
\$6 per cubic yard, so that I should say the range was  
from six to six twenty-five, to six forty, to six fifty, to six  
eighty, on contracts actually let.

*Q.* And for asphalt block the prices range per cubic  
yard from \$4 to \$4.16, is that correct?

*A.* It is.

*Q.* For concrete per cubic yard under granite block the  
prices range from \$4 to \$4.25, is that correct?

*A.* It is partly. In one case a price was made of \$4.39.

*Q.* Then it ranges from \$4 to \$4.39, is that correct?

*A.* It is.

*Q.* And for concrete per cubic yard under sheet as-  
phalt the prices range from \$3.40 to \$5.50, is that cor-  
rect?

*A.* It is.

*Q.* And you say that the item in which the chief ex-  
cesses have occurred in the contracts let to the United  
States Wood Preserving Company for wood block pave-  
ment is concrete foundation, is that correct?

*A.* It is correct as regards frequency of excess and also  
as regards total amount of excess in dollars.

*Q.* As regards frequency as well as total amount, is that  
right?

*A.* Yes, it is right.

*Q.* Now, what explanation if any has been made for the excesses allowed in concrete foundation?

*A.* The explanations vary for the excesses. In many instances no explanation is given in the original voucher by which the payments were made as on file in the office of the Commissioner of Public Works, and in other instances the explanations are in some cases, "Excessive cushion of sand found under old pavement."

*Q.* Is there any explanation of what "excessive cushion of sand under old pavement" means?

*A.* No, except as I recall, in one or two cases they made a somewhat more full statement of the excessive cushion of sand necessary to be removed.

*Q.* Well, is that the only explanation which you found for these excesses in concrete foundation?

*A.* In a general way, yes.

*Q.* Has this excess, due allegedly to excessive cushion of sand, occurred in every case of pavement laid?

*A.* No, in some cases no explanation at all was given.

*Q.* Did you find any cases where no such excessive cushion of sand was found?

*A.* As to that I cannot state, because there being a lack of explanation, I am unable to state whether there was an excessive cushion of sand found or not.

*Q.* Well, can you cite any instances of streets where there was an excess allowed for concrete foundation without the explanation offered which you have just described?

*A.* I believe so, yes.

*Q.* What cases were those?

*A.* I will have to go through these different contracts in detail to pick them out. Do you wish me to do so?

*Q.* Well, do you know that there were cases where the excess was allowed without an explanation?

*A.* I do.

*Q.* Were they cases of contracts let to the United States Wood Preserving Company or others?

*A.* To the United States Wood Preserving Company.



Q. Will you go through your notes and pick out some of those cases?

A. I will do so. 1905, bid sheet 113, contractor United States Wood Preserving Company, bid amount \$75,992, returned amount \$80,708.40, excess \$4,716.40; for paving with wood block pavement on concrete east Broadway from Chatham Square to Grand street. Reference is made to voucher 2,664, requisition 3,688, dated 13th day of November, 1905, for the amount of \$34,653.04. No letter is attached to the voucher explaining excess of returned amount over bid price. The excess is due to 19,378.8 square yards pavement laid at a price of \$2.60 per square yard being allowed instead of 18,540 square yards, which was the bid amount, and is due also to 3,604.5 cubic yards of concrete being allowed instead of 3,090 cubic yards, which was the bid amount, at a price of \$6.40 per cubic yard. Inspection of foregoing voucher would seem to show that on practically all of the work where unit prices were low the returned amounts were less than the original estimates, that is the bid amounts, while in the case of practically all of the work for which the unit prices were high, the returned amounts allowed were in excess and largely so of the bid amounts. Reference is made to engineer's certificate dated 13th day of November, 1905, signed on the 17th day of November, 1905, by George R. Olney, chief engineer, and G. F. Scannell, superintendent. The voucher itself is also signed on the 18th day of November, 1905, by G. R. Olney and G. F. Scannell.

1905, bid sheet 201, contractor United States Wood Preserving Company, bid amount \$23,498.50, returned amount \$30,512.43, excess of returned amount allowed over bid amount \$7,013.93. For paving with wood block pavement on concrete Park Place from Broadway to West Street. Reference is made to voucher 2,721, requisition No. 4,577. Voucher is dated 2nd day of November, 1906. Amount \$13,656.22. Reference is

made to letter dated first day of November, 1906, to G. R. Olney, chief engineer, signed J. G. Horgan, stating that the excess in returned amount over the bid amount is due to an error in preliminary estimate. Reference is also made to letter dated first day of November, 1906, to G. R. Olney, by J. G. Horgan and approved by G. R. Olney. The excess is due to 1493.8 cubic yards of concrete allowed at \$6 per cubic yard, where the original estimate called for only 316 cubic yards. Reference is made to engineer's certificate dated 2nd day of November, 1906, signed G. R. Olney, and George F. Scannell. Reference is made to voucher dated 5th day of November, 1906, signed George R. Olney and G. F. Scannell. Reference is made to bid sheet 201, dated 17th day of October, 1905.

*Q.* For what pavement was that?

*A.* Wood block pavement on concrete, Park Place from Broadway to West Street. Do you wish me, Mr. Commissioner, to include in these explanations of any nature other than the cushion of sand, or any such contracts where there were excesses which were not explained at all?

*Q.* If there is any explanation for the excess of concrete in cubic yards over the estimated amount, I want you to tell us what that explanation was?

*A.* I have been so far only giving you cases where there was no explanation, or where the explanation was not excessive cushion of sand, but I understand that you wish me to give cases where there was no explanation, and where there was an explanation of any sort to give it also?

*Q.* Yes.

*A.* I will do so. 1905, contract ledger, bid sheet 106. Reference is made to voucher 2,770, dated the 10th day of November, 1906, requisition No. 4,595. Payment on acceptance of work, amount \$6,817.11. Excess is due to 1,163 cubic yards of concrete being allowed instead of 940 cubic yards, bid amount, at \$6.40 per cubic yard. Reference is made to letter dated 8th day of November, 1906, to G. R. Olney, chief engineer, signed J. P. McPeak,

and approved by George R. Olney. Explanation is, "The excessive cushion of sand under the old granite pavement." Reference is made to engineer's certificate, dated 10th day of November, 1906, signed G. R. Olney and George F. Scannell, Superintendent of Highways. Reference is made to voucher signed on the 12th day of November, 1906, by George R. Olney and George F. Scannell.

*Q.* What is the number of that folio?

*A.* Folio 106, contract ledger 1905. 1905, Folio 198, reference is made to voucher No. 1,346, requisition No. 4,206, voucher is dated 11th day of June, 1906, and is in amount \$15,969. Reference is made to letter dated 11th day of June, 1906, signed by J. P. McPeak, approved by George R. Olney. The excess is due to 1981.2 cubic yards of concrete being allowed instead of 1,150, bid amount at a price of \$6 per cubic yard, because, "Excessive cushion of sand under old granite pavement, which was necessary to remove in order to lay new concrete on old foundation." Reference is made to letter dated 12th day of June, 1906, signed by J. P. McPeak and approved by George R. Olney. Reference is made to engineer's certificate dated 11th day of June, 1906, signed by George R. Olney and George F. Scannell. Reference is made to voucher signed 12th day of June, 1906, by George R. Olney and George F. Scannell. Reference is made to bid sheet 198, dated 17th day of October, 1905, signed by John F. McEarn.

*Q.* What pavement was that?

*A.* Paving with wood block pavement on concrete on Battery Place from Broadway to West Street.

*Q.* Have you among those contracts the one let for the paving of Broadway, lower Broadway, from Fulton Street south?

*A.* I have.

*Q.* Was there an excess in that case?

*A.* There was, and the amount in dollars of the excess was \$4,252.93.

*Q.* Will you give us all the details of that contract, including the folio number, as you have done in the other cases?

*A.* Contract ledger 1905, folio 204, bid amount \$59,951, returned amount \$64,203.93. Excess of returned amount allowed over bid amount \$4,252.93. For paving with wood block Broadway from Vesey Street to Battery Place. Reference is made to voucher No. 1,294, requisition No. 4,189. Excess due to "Partly to erroneous deduction in the latter for rail area, amounting to 910 square yards of pavement, and partly due to an error in the preliminary, which amounts to about 400 square yards." Reference is made to a letter initialed W. G. F. to G. R. Olney, chief engineer, dated 13th day of June, 1905, regarding the preliminary engineering estimate for said contract.

*Q.* Was there not an excess there also in the matter of cubic yardage of concrete?

*A.* There was, and the 400 square yards refers to that, I believe——

*Q.* All right, continue?

*A.* (Continuing) ——although the letter is rather vague, as will be seen from perusal, on the quotation I have made from it, in its language. I would make further reference to a letter dated 5th day of June, 1906, signed by J. P. McPeak to George R. Olney, and approved by George R. Olney, chief engineer, and George F. Scannell, Superintendent of Highways. The excess is due to 15,291 square yards of pavement at \$3.08 per square yard, being allowed instead of 13,950 square yards of bid amount. Also due to 2,573.8 cubic yards of concrete being allowed at a price of \$6 per cubic yard, as compared with the bid amount of 2,405 cubic yards. Reference is made to voucher dated 2d day of June, 1906, signed by George R. Olney and George F. Scannell. Reference is made to bid sheet 204, signed by John F. Ahern. In further answer to your question, I would

state that on account of the vagueness of the letter it would take a detailed investigation to answer it in full.

*Q.* In the cases where an excess in the square yardage of pavement laid over the estimated amount which was allowed, did you find any explanations offered other than the one you have just indicated of an error in the preliminary estimate?

*A.* I cannot satisfactorily state from memory, but that would come out in going over these contracts which I am now reading, if you wish that done.

*Q.* I think it is not necessary to go into any more in detail?

*A.* In further answer to that question, the contract just read refers to an error in the preliminary and an erroneous deduction for rail area, and there may have been in some cases an explanation for an excess of the pavement laid which I do not from memory recall.

*Q.* Mr. MacNeille, did you take note of the names of the various inspectors, engineers and other persons who certified to or approved of the excesses which were allowed in the case of these various contracts?

*A.* I did.

*Q.* Will you give us the names of some of those and describe the method in which the certification is made or the allowance is made?

*A.* The first refers to the preliminary estimates submitted to Chief Engineer George R. Olney, of the Bureau of Highways, for materials required in repaving various streets with wood block pavement. Reference is made to a letter dated the 7th day of July, 1905, initialed W. G. F. to G. R. Olney, Chief Engineer, referring to the pavement on Battery Place, from Broadway to West Street, the contract for which is on folio 198 of the contract ledger of 1905. Reference is also made to a letter dated the 18th day of July, 1905, signed J. P. McPeak to G. R. Olney, Chief Engineer, with reference to the pavement on Old Slip from Front to Water Streets, the contract for which appears on folio 200, contract ledger 1905.

*Q.* Do you know what Mr. McPeak's official position is in the Bureau?

*A.* I believe him to be one of Mr. Olney's engineers.

*Q.* On what do you base that belief?

*A.* On the fact that he made reports to the Chief Engineer, Olney, which were used by Chief Engineer Olney in making his report to President Ahearn.

*Q.* Did you mean engineer or did you mean inspector?

*A.* There seems to be a confusion between the titles, and I would say in this connection that the titles appearing on the pay rolls and on the employes' record cards in the administrative office in the Department of the Borough President, are confusing and I am unable to state at the present time whether Mr. McPeak was always called inspector or was at times called inspector and at other times called engineer, and whether at one time he performed the duties of an inspector and at another time performed the duties of an engineer, but I believe, so far as my present knowledge goes, it would be more proper to call him an engineer than an inspector.

*Q.* Go on?

*A.* And my understanding is that in the letters that he wrote to Chief Engineer Olney, and some of which were attached to original vouchers already referred to in this testimony, and he wrote some in his capacity as engineer. I raised question about that and the answers were confused as to what men did the returning and what men made the engineer's certificates. I would add that no title is apparent on the records and papers I have referred to of Mr. McPeak, and I paid no especial attention to who Mr. McPeak was, except I made a record of where his name appeared and what documents it was signed to.

*Q.* Tell us what others in the Bureau or Department certify to or pass upon excesses?

*A.* I have here a long list from which I will quote a few more. Reference is made to J. T. McPeak, memo. dated 21st day of August, 1905, on file in Mr. Olney's office, referring to pavement on Cedar Street from Pearl

Street to William Street, the contract for which is found at folio 194, contract ledger 1905. Reference is made to J. F. McPeak's memo. dated 21st day of August, 1905, on file in Mr. Olney's office, referring to pavement on Dey Street from Greenwich to West Street, contract for which is found at folio 197, contract ledger 1905.

*Q.* Will you tell us how the Borough President passes upon these matters as indicated by the records?

*A.* The Borough President signs the voucher as finally approving the payment and finally approving the statements on the voucher and attached to it.

*Q.* The voucher and payments have first been passed and certified to by the Chief Engineer, is that correct?

*A.* It is.

*Q.* And by the Superintendent of Highways?

*A.* It is.

*Q.* And below them by whom?

*A.* Below them by their engineer or engineers and by certain inspectors, and the vouchers contain at times various special letters and papers, which are missing at other times.

*Q.* Did you find that Mr. McPeak's name appeared frequently or otherwise as passing upon or certifying to these excesses?

*A.* It appeared frequently in connection with wood paving contracts let to the United States Wood Preserving Company.

*Q.* Now, Mr. MacNeille, will you summarize briefly the causes which you have found assigned for excesses in the case of these contracts?

*A.* The most frequent cause assigned was, "Excessive cushion of sand found under the old pavement."

*Q.* Does that apply only to excess in cubic yardage of concrete foundation?

*A.* It does. Other explanations were errors in preliminary estimate, and in one or two cases where errors were assigned as the reason for the excess being allowed the excess was very large in amount. In many cases no



explanation was given which attracted my special attention and notes of which I have here.

*Q.* I show you an official copy of the City Record, from July 1st to December 31st, 1906, exclusive, the civil list on page 67, showing under the name of Bureau of Highways, the name of Joseph P. T. McPeak, 451 East Eighty-eighth Street, leveler, and ask you if that is the man whose name you found signed to the letters to which you have referred?

*A.* I should infer that it was, because the first two initials are the same as I found, but I do not recall seeing his full name signed in that manner to any document that I examined.

*Q.* How did you find his name signed?

*A.* From memory, I am unable to state, except in my notes I made a record of his initials, which were the only initials given in the papers copied from.

*Q.* How did you find his name signed?

*A.* I repeat my answer, I do not know how his name signed, but in my notes I made a record of the initials, which were the only initials given.

*Q.* What is that note?

*A.* The note reads, J. P., and in another case I believe where he signed his initials, but not his full name, to the estimates submitted by him to Chief Engineer Olney, it appeared to be J. T. McPeak, and in the letters that he wrote, carbon copies of which were attached to the vouchers referred to, he signed J. P. McPeak, and in this name I find both the P. and T. were middle initials.

OTTO H. KLEIN, recalled for further examination, testified as follows:

*Examined* by Commissioner MITCHEL:

*Q.* You testified before, Mr. Klein, that you were Chief Engineer of the office of the Commissioners of Accounts, did you not?

*A.* Yes, sir.



*Q.* How long have you been Chief Engineer of that office, Mr. Klein?

*A.* About ten years.

*Q.* Before that with what office were you connected?

*A.* I was general engineering in practice for myself.

*Q.* During the ten years that you have been connected with the office of the Commissioners of Accounts have you had occasion to become familiar with the methods and system in the Bureau of Highways?

*A.* Yes, sir.

*Q.* Have you become familiar with the questions involved in the laying and maintaining of pavements?

*A.* Yes, sir.

*Q.* Have you had occasion to examine into the methods of making preliminary estimates?

*A.* Yes, sir.

*Q.* In the case of pavements?

*A.* Yes, sir.

*Q.* Can you say, Mr. Klein, whether it is possible for a competent engineer to accurately estimate the square yardage of the surface to be covered by a new pavement in any given street?

*A.* It is.

*Q.* How closely may such an estimate be made, with accuracy?

*A.* In practice, allow an excess or reduction of about one per cent.

*Q.* One per cent.?

*A.* Yes.

*Q.* Would it not be possible to reckon even more closely than that?

*A.* It would under circumstances.

*Q.* Are you acquainted with the general condition and appearance and dimensions of Battery Place between Broadway and West Street?

*A.* I am not acquainted with the dimensions, but I know the site.

*Q.* Can you say whether it would be possible in the case

of a street like that for a competent engineer to accurately estimate the square yardage of pavement to be laid within the limits I have named?

A. If the limits are fixed, it would be.

Q. Are you acquainted with the general dimensions and appearance and physical condition of lower Broadway between Vesey Street and Battery Place?

A. Well, I am not exactly acquainted regarding all the features, only the surface, I am acquainted about the surface itself, about the pavement.

Q. Can you say whether or not it would be possible for a competent engineer to correctly estimate within that limit of one per cent. that you have named the square yardage of the surface to be covered by a pavement in letting the contract for the paving of lower Broadway between Vesey Street and Battery Place?

A. It would be.

Q. Can you say whether or not an error to the extent of 900 square yards in estimating that surface that I have named, to an erroneous deduction for rail area, would be an excusable error in a competent engineer?

A. It would not be.

Q. Can you say whether an error of 400 square yards in that area in estimating the square yardage of the area to be covered by a new pavement, due to an error in preliminary estimating, otherwise unexplained, would be excusable on the part of a competent engineer?

A. There is no excuse for that.

Q. Are you acquainted with the bed upon which stone blocks are laid in the case of stone block pavements in this Borough?

A. Well, they are laid on two foundations: one foundation is formed by the natural ground, and the other foundation is formed by concrete, and the concrete foundation has a cushion of sand over it, on which the granite blocks proper rest.

Q. Is it possible for a competent engineer to accurately estimate the cubic yardage of such cushion of sand exist-

ing between stone block surface and the concrete foundation on any given street between given limits?

A. It should be possible within five per cent.

Q. Within five per cent.?

A. Yes, sir.

Q. How would such an estimate be made, what examination would it be based upon by a competent engineer?

A. Soundings would have to be taken about every fifty feet and from those soundings the computations of the amount of concrete required made.

Q. If such soundings were taken every fifty feet, would it be possible for a competent engineer to estimate the cubic yardage of such cushion of sand within five per cent., as you say?

A. It would be, unless you met conditions which do not show above the surface.

Q. By taking soundings every fifty feet, would you not eliminate the possibility of being surprised by such conditions in the course of the construction work?

A. I would be very much surprised to meet conditions which would enlarge my estimate.

Q. Would you not reduce the possibility to a point where a large excess would become extremely improbable?

A. That is right.

Q. Take the case of Battery Place, between West Street and Broadway. What would you say as to an excess, in the contract for the paving of that street with wood blocks, on concrete foundation to the extent of 72.3 per cent. over the estimated amount, the reason for which was assigned to be excessive cushion of sand found under the old stone block?

A. An excess of that magnitude is impossible in good engineering practice.

Q. Would it be possible for such an excess to be found had the preliminary estimate been honestly made by a moderately competent engineer?

A. It would not.

Q. Would it be possible for excesses approximating

that percentage to occur if preliminary estimates within defined limits were made by honest and competent engineers?

A. It should not exceed that.

Q. Do you know a Mr. McPeak employed in the Bureau of Highways?

A. I have met him once, I think, out on the work.

Q. Do you know what his official position in the Bureau is?

A. His official title at that time was leveler.

Q. Do you know what it is at present?

A. I do not.

Q. Do you know what his full name is?

A. No, sir.

Q. Did you by the direction of the Commissioners of Accounts make an examination of the physical condition of the streets, of the pavements of streets of this Borough between Twenty-third and Fifty-ninth Streets?

A. Yes, sir.

Q. Will you please tell us what you found, Mr. Klein?

A. On April 6th, this year, I made an examination of nearly all the blocks bounded by Twenty-third Street, Fifty-ninth Street, the North and East River, and I found the streets in very bad condition, sadly wanting repairs. I principally found the various blocks on Twenty-fourth, Twenty-sixth, Thirty-seventh and Fifty-eighth Streets—

Q. Was the condition generally of the streets within those limits normal or abnormal for a city such as the City of New York?

A. Well, I should say abnormal.

Q. Abnormally good or abnormally bad?

A. Abnormally bad.

Q. What per cent. of the blocks within those limits did you find to be in good repair and what per cent. did you find to be in bad repair?

A. Well, to subdivide those blocks approximately I would say about ten per cent. were in good condition, which did not require any repair; about twenty per cent.

were in a condition which required slight repairs; about sixty per cent. were in a condition which required very much repair, and ten per cent. were in a dangerous condition, which I should say the only remedy would be to tear them up and repave them.

*Q.* What did you find as to the condition of First Avenue between Twenty-third and Fifty-ninth Streets?

*A.* I think First Avenue is one of the worst streets of all the streets I inspected on that trip. It is in dangerous condition.

*Q.* The pavement of that street is under a guaranty of maintenance, is it not?

*A.* It is. I understood the guaranty of maintenance expires in 1912.

*Q.* What proportion of the defects in the pavement of First Avenue within those limits was in your opinion or were in your opinion due to wear and tear and what to other causes?

*A.* On First Avenue you have reference to?

*Q.* Yes?

*A.* Well, on First Avenue I think I should make an exception; I should say on First Avenue three-quarters of the defects are due to wear and tear, the balance to excavations, while on the other streets I should say two-thirds is due to wear and tear, while one-third is due to openings made in the pavements and not repaired.

*Q.* The guaranty of maintenance guarantees repair by the contractor of holes due to wear and tear, does it not?

*A.* It does.

*Q.* Mr. Klein, did you make a study of the organization of the Bureau of Highways with a view to determining the officials who have within their jurisdiction given classes of work?

*A.* I did.

*Q.* Will you tell us how the Bureau of Highways is organized and who are the responsible officials?

*A.* The work of the Bureau of Highways is divided principally into two departments, one under the Chief

Engineer and the other under the Superintendent of Highways. The Chief Engineer has charge of the preliminary operations and construction work of all classes; he also has charge of a portion of the maintenance work.

*Q.* What portion of the maintenance work?

*A.* So far as the work has to do with asphalt pavements of different classes and wood block pavements. He also issues the permits for openings made in the pavements by the City Departments and corporations. He has under him one assistant engineer, who has charge of the maintenance work, a chemist, a chief clerk, two draughtsmen, three surveying parties, each composed of a leveller and three assistants, six inspectors of sidewalk repairs and forty inspectors of regulating, grading and paving, a chief clerk and a stenographer.

*Q.* Well, has not the Chief Engineer other inspectors to assist him?

*A.* Yes, he has a chief inspector and rodman, and thirty inspectors of maintenance, they come under the Assistant Engineer, and there are two clerks under the Chief Clerk.

*Q.* What are the duties of the Assistant Engineer generally?

*A.* The Assistant Engineer has general charge of all the maintenance work, of all the various sheet asphalt, asphalt block and wood block pavements.

*Q.* The surveying parties, what do they do?

*A.* The surveying parties measure up for new work and make out the estimates for the contract work as it goes on.

*Q.* What does the chemist do?

*A.* The chemist analyzes and examines the samples of paving materials which are furnished at the time the bids are made or before.

*Q.* What are the duties of the draughtsmen?

*A.* Well, the draughtsmen get up the maps, which are grade maps, which are necessary for paving the streets.

*Q.* And the leveller?

A. The leveller is in charge of the map room there.

Q. What do the six inspectors of sidewalk repairs do?

A. They inspect sidewalks which require repairs, and if they find any bad sidewalks they report to the Chief Engineer, who sends out notices to the owners of the property to have those sidewalks repaired.

Q. Are those the only men assigned to that duty in this Borough?

A. That is all for that work.

Q. What do the forty inspectors of regulating, grading and paving do?

A. They are stationed at the various contracts to see that the work is carried out in accordance with the plans and specifications. They make weekly reports to the Chief Engineer and they are supposed to remain at their post from the time the work commences in the morning until it is over in the evening.

Q. Are those the inspectors who inspect the laying of new pavements?

A. They are.

Q. Are they the men who inspect the repaving work?

A. No, sir—oh, the repaving work?

Q. Yes?

A. Yes.

Q. Are those forty men the only ones assigned to that work in this Borough?

A. They are.

Q. Do they do anything besides inspecting paving and repaving?

A. They inspect regulating and grading also.

Q. What is regulating and grading?

A. Regulating and grading is the procedure of opening a new street, cutting or filling the street, setting curb stones, flags and so forth.

Q. Then those forty men are supposed to inspect regulating and grading, which is the cutting through of new streets?

A. Yes, sir.

*Q.* The laying of pavements of all kinds?

*A.* Of all kinds.

*Q.* And the repaving work of all kinds?

*A.* And the repaving work of all kinds.

*Q.* Are these men therefore supposed to have technical knowledge covering all those classes of work?

*A.* Yes, sir.

*Q.* Do these men inspect asphalt block and wood block pavements?

*A.* They do.

*Q.* Do they also inspect the laying of stone block pavements?

*A.* They do.

*Q.* And the physical work of cutting through new streets also?

*A.* Yes, sir.

*Q.* Now, under whose supervision is the Chief Inspector.

*A.* Under the supervision of the Assistant Engineer in charge of maintenance.

*Q.* Then, the Chief Inspector inspects the maintenance work, is that right?

*A.* He does.

*Q.* What do these thirty inspectors marked "maintenance" do?

*A.* They are supposed to inspect the repairs of streets which are under a maintenance or guaranty contract.

*Q.* Are they supposed to report defects in existing pavements?

*A.* They are.

*Q.* Are they supposed to inspect the work of restoring pavement over defects?

*A.* Yes, sir.

*Q.* Are they supposed to do the work of inspecting the restoration of pavement over cuts made by individuals and corporations.

*A.* Yes, sir.



*Q.* Are they supposed to make whatever inspections are made of pavements under guaranty?

*A.* Yes, sir.

*Q.* Are these thirty men the only ones assigned to this work in this Borough?

*A.* To my knowledge, they are.

*Q.* Then, these thirty men are supposed to report all defects in existing pavements as well as to inspect the restoration of pavements over all defects?

*A.* That is my understanding about their duties.

*Q.* What do the three levellers and their nine assistants do?

*A.* They make surveys of repaving work and measure up for the various estimates, also for the final estimate on the area of the street and the work done.

*Q.* These are the men therefore who pass upon the questions of excesses over preliminary estimates in amount?

*A.* They are, according to the statement I heard before of Mr. MacNeille.

*Q.* What is the "assistant" on this table?

*A.* That is chemist's assistant.

*Q.* What does he do?

*A.* I don't know. He helps along in the laboratory I suppose, cleans glasses and so forth.

*Q.* Does this cover the staff of the Chief Engineer?

*A.* This covers the staff of the Chief Engineer.

*Q.* Has the Superintendent of Highways anything to do with the asphalt, wood block or asphalt block pavements in the Borough?

*A.* No, sir.

*Q.* Over what work has he supervision and charge?

*A.* The Superintendent of Highways has charge of the repairs of stone block pavements, the repairs of macadam and cobble stone pavements.

*Q.* How is his staff made up?

*A.* His staff is a very complicated one. He has one Assistant Engineer assigned to him, and under this As-

sistant Engineer comes a Chief General Foreman of Paving, a General Inspector of Roads and a General Foreman of Yards. Under the Chief General Foreman of Paving there is first a General Foreman in charge of section. Under him is a Foreman and Assistant Foreman. This Assistant Foreman has charge of two pavers, one rammer, three to four laborers and one to two carts. Again, from five to ten Foremen and Assistant Foremen, with gangs as above. There is a general utility man, one Messenger and one Inspector of Paving.

*Q.* Are those three under the General Foreman in charge of section?

*A.* Yes, sir.

*Q.* What are the duties of a utility man?

*A.* I don't know, I suppose he is around the office, or acts as messenger, something like that.

*Q.* How many General Foremen in charge of sections are there?

*A.* There are six.

*Q.* Has each one——

*A.* Each one has the same subordinates as I just mentioned.

*Q.* Are there any other gangs?

*A.* Yes, sir, then there are two gangs stationed at the viaduct.

*Q.* Any others?

*A.* Now, the General Inspector of Roads has a General Foreman under him, who controls the territory north of One Hundred and Fifty-fifth Street.

*Q.* The General Inspector of Roads is distinct from the Chief General Foreman of Paving, is he not?

*A.* Yes, sir.

*Q.* Who else has the General Inspector of Roads under him?

*A.* As I understood, he has a General Foreman on the territory north of One Hundred and Fifty-fifth Street and he has one south of One Hundred and Fifty-fifth Street. Those General Foremen, one has five and the other has seven foremen under him again.

*Q.* Which one has five and which seven?

*A.* North of One Hundred and Fifty-fifth Street, the General Foreman has five foremen under him and he has five gangs of laborers, averaging about ten men each, and the General Foreman in the territory south of One Hundred and Fifty-fifth Street has seven foremen under him, and they each have one gang of laborers averaging about ten men each.

*Q.* Anybody else under the General Inspector of roads?

*A.* Yes, sir, there is a Shop Foreman in charge of repair shop.

*Q.* What does he do?

*A.* He has charge of wheelwrights, painters, carpenters, and so forth.

*Q.* What are their duties?

*A.* Their duties are to repair the carts and tools of the working gangs.

*Q.* Then the Bureau owns carts and tools, does it?

*A.* Yes, sir, they do.

*Q.* Used for what purpose?

*A.* For carting material to the repairs, whenever repairs are made. Then, the next is the General Foreman of Yards. He has charge of two yards, under him come two Foremen, one has charge of the West-side yards, one has charge of the East-side yards. The West-side yards again have three Yard Foremen, and one moving gang and carts and three watchmen. The Foreman of the East-side yards has six Yard Foremen under him, with one moving gang and carts and six watchmen.

*Q.* What are these yards for?

*A.* For storing material.

*Q.* For storing material used by the Bureau?

*A.* Used by the Bureau for paving, etc., yes.

*Q.* You said a moment ago the Bureau owned horses and carts?

*A.* Yes, sir.

*Q.* Does the Bureau also not hire the services of horses and carts?

A. I think they do.

Q. Do you know where the stables are of the horses that are owned by the Bureau?

A. I do not. The Superintendent of Highways has also a clerical force, consisting of one clerk, acting as chief clerk, and under him are five clerks with various duties and one stenographer.

Q. What are the various duties of those five clerks, do you know?

A. Permits and so forth.

Q. Who is in supreme authority in the Bureau of Highways, the Chief Engineer or the Superintendent of Highways?

A. Well, in my examination, as a matter of organization, I have been unable to define the relation between the Chief Engineer and the Superintendent of Highways.

Q. Has one authority over the other or are they co-ordinate?

A. I have been unable to find that out. I have been unable to find out who is the superior.

Q. Do you know whether one reports through the other to the Borough President or whether both report directly?

A. Well, both report directly, and a good many reports are made, I understand, from the Chief Engineer through the Superintendent of Highways and vice versa.

Q. That is, some reports are made by the Chief Engineer through the Superintendent of Highways and others by the Superintendent of Highways through the Chief Engineer?

A. I understand all communications coming from the President's office go through the hands of the Superintendent of Highways first before they go to the Chief Engineer.

Q. Does all the correspondence going to the Borough President's office from the Chief Engineer pass through the hands of the Superintendent?

A. Mr. Olney told me no, he sends them directly.

Q. Can you say how many men in all the Superintendent of Highways has under him?

A. I think about 400, because I was told so.

Q. Did you make an examination into that?

A. I asked Mr. Stewart, the Assistant Engineer under the Superintendent of Highways, I had an interview with him, and he explained all the workings.

Q. You did not examine the pay-rolls to arrive at that figure, did you?

A. No, sir, I did not. That was his statement on my question of how many men they had.

Q. Would you be surprised to learn he had 800 men under him?

A. I do not know about that, he told me 400.

Q. Does the Superintendent of Highways act in all cases through his Assistant Engineer or does he ever act directly in supervising the work?

A. I don't know. I had no interview with the Superintendent of Highways, no personal interview with him.

Q. Did you ever hear of the office of Principal Assistant Engineer in the Bureau of Highways?

A. No, sir. I understand there is only two men there whose title is Assistant Engineer, Mr. Goodsell and Mr. Stewart.

Q. I asked if you had ever heard of the other title?

A. No, sir, I didn't.

Adjourned to May 3d, 1907, at 10:30 a. m.

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NEW YORK, May 3d, 1907.

Met pursuant to adjournment.

Present—Commissioners MITCHEL and HERTLE; and Mr. BRUERE.

Continuation of the Examination of OTTO H. KLEIN:

By Commissioner MITCHEL:

Q. Mr. Klein, what are the general classes of work done by the Bureau of Highways?

A. Preliminary work, which consists of surveys and assessments for assessment work, and surveys and estimates for repaving work. Then the preparation of contracts, specifications, and so forth, and examination of samples submitted with bids.

Q. All that is preliminary work, is it?

A. Yes, sir; then the second, construction work, which consists of first, assessment work. This is subdivided into regulating and grading contracts, paving contracts, and they are subdivided into sheet asphalt on concrete foundation, asphalt blocks on concrete foundation, granite blocks on concrete foundation, and wood blocks on concrete foundation.

The second class of the construction work is the repaving work, which consists of sheet asphalt on present pavement relaid, sheet asphalt on concrete foundation, asphalt block on concrete foundation, wood block on concrete foundation, and granite block on concrete foundation.

Then the third class is the maintenance work. This is subdivided into repairs under guaranty period of contract, repairs under maintenance contracts, and repairs made by employees of Bureau. The repairs are due to, first, wear and tear, due to traffic, leaky gas mains, etc.; secondly, to injuries done by bonfires and unknown causes; and third, openings, and they are subdivided into plumbers' openings, builders' openings, resetting curb openings, banner pole and guy post openings, and corporation openings for electric conduits, telephone and telegraph conduits, gas mains, steam mains, pneumatic tubes, street railway companies' repairs, and openings made by City Departments. The City Departments which make openings are, Department of Water Supply, Gas and Electricity, Rapid Transit Commission and Bureau of Sewers. The Bureau of Sewers is a branch of the Department of the President of the Borough.

*Q.* Mr. Klein, who has charge and supreme control of the preliminary work?

*A.* The Chief Engineer.

*Q.* Has the Superintendent anything to do with that class of work?

*A.* Not to my knowledge.

*Q.* Who has charge of the contract work?

*A.* The Chief Engineer.

*Q.* Has the Superintendent anything to do with that?

*A.* No, I don't think so.

*Q.* Who has charge of the maintenance work?

*A.* The Chief Engineer and the Superintendent of Highways, both, that is the Chief Engineer has charge of all the pavement except granite block and macadam roads, which are under the Superintendent of Highways.

*Q.* Then in the Division of Maintenance Work, the Superintendent of Highways has charge only of that portion?

*A.* Only of the granite blocks and cobble stone and macadam roads, yes, sir.

*Q.* Then of all the work done by the Bureau, the Superintendent has charge of nothing except the maintenance and repairs of granite block and macadam streets, is that right?

*A.* And cobble stones, yes, sir.

*Q.* And the Chief Engineer has charge of everything else?

*A.* Yes, sir.

*Q.* How does the force employed by the Superintendent compare in numbers with the force employed by the Chief Engineer?

*A.* The Superintendent of Highways has the greater force, his force consists of workmen, mechanics, while the Chief Engineer's force consists of engineers and assistants.

*Q.* What do you say as to the preliminary work and the method of carrying it on?

*A.* The preliminary work is subdivided into two

classes, assessment work, which is paid for by the abutting property owners, and repaving work, which is paid by the City at large.

*Q.* Now, as to the assessment work.

*A.* The assessment work is done under the Chief Engineer, but under the direct supervision of the City Surveyor, which is not a direct employee of the Borough President's office.

*Q.* Is not that a matter provided for by ordinance?

*A.* Yes, by City Ordinance, that provides for that.

*Q.* Who selects the City Surveyor for a particular piece of work?

*A.* I think the City Surveyor is selected by the Borough President on recommendation of the Chief Engineer.

*Q.* Then the selection of the given City Surveyor lies in the Borough President's office, is that so?

*A.* Yes, sir.

*Q.* Well, what do you say as to the employment of City surveyors?

*A.* I have been very much opposed to the employment of a City Surveyor, because we had in the past a lot of trouble. We have acted at various occasions as engineers and experts for the Corporation Counsel in law suits, and we had the utmost trouble in getting the information which the City ought to own itself, which the City ought to have from those people, because they claim their notes are their own private property. We have also found a lot of difficulties on the work, poor workmanship, and I have advocated that this work should be done by engineers employed directly and permanently by the various Borough Presidents.

*Q.* When you speak of their notes which you say they claim are their private property, what do you mean?

*A.* I mean the surveys, the data which are obtained by the surveys, and they are supposed to make estimates while the work is going on.

*Q.* Estimates of what?



A. Estimates of the work.

Q. Of the amount of work done, you mean?

A. Yes, amount of work done, so the contractor can obtain his monthly payment on the work. These notes require more or less instrument work and those are the notes which I have reference to when I say the City Surveyor is the owner of them entirely.

Q. Do you mean both the notes on which they base their preliminary estimates and the notes taken in the field during the course of the work?

A. Yes, sir.

Q. Where do you think those notes ought to be kept?

A. They ought to be kept in the Bureau of Highways.

Q. Is the Bureau of Highways at present without such records?

A. They are.

Q. Well, what are the consequences of that?

A. Well, the consequences may be very grave.

Q. In what way?

A. As I said before, in legal proceedings against the City, they may give rise to the property owners commencing suit to evade the assessments, as has been done in the past, owing to the information received concerning the incompetency of City surveyors.

Q. What can you say about the accuracy of the preliminary estimates made by the City surveyors?

A. We have found in our experience that the accuracy was very much lacking in preliminary as well as final estimates.

Q. Well, can you give us any details?

A. I can only say this, that I was told that a good many quantities they are getting up simply by guessing at them.

Q. You were told by whom?

A. I was told by the City surveyors themselves when the occasion arose to question them about their notes and they had no data.

Q. They had no data?

A. They had no data.

Q. Does that mean they had taken no notes?

A. No, I mean they had notes in general, but you take, for instance, there are bowlders on the work—which are supposed to be carted away.

Q. You mean surface bowlders?

A. Yes, and bowlders which you come across in excavation, the cubical contents of those bowlders has been guessed at, not measured. I do not say that is so in every instance, but I remember quite some instances.

Q. What were they?

A. I am unable to tell you the location, it may have been four or five years ago, when the trial——

Q. Do you know anything about the method employed by the City surveyors in determining the amount of rock to be excavated in a given piece of work?

A. Well, generally they use very little pains to get at the quantity of rock by soundings.

Q. Well, how do they do it?

A. They just take a few soundings.

Q. Take a distance of 1,000 yards or 1,000 feet, in the case of a new street to be put through, when you say a few soundings, just what do you mean?

A. Well, I mean that most of those preliminary surveys are based upon a few soundings, one here and there, without any regular system.

Q. Does one here and there mean every five feet or every fifty feet or every thousand feet?

A. I couldn't tell you how far apart, but I know that they are not systematically made. Mr. Welton, my first assistant, has more knowledge of that special work of the City surveyors, because he has made a special point to look into that.

Q. Will you tell us again what suggestions you have to make as to the remedy for the conditions which you criticize?

A. With regard to City surveyors?

Q. Yes.

A. I would recommend that the employment of City surveyors should be done away with, and the class of work they are doing now should be done by engineers in the regular employ of the Bureau.

Q. Would this cost the City more or less?

A. It would cost, I should say, less, because those engineers, outside of the work they would do which the City surveyors are doing now, they could be utilized for other work.

Q. How do the fees now received by City surveyors compare with the proper salaries for engineers employed by the Bureau such as you describe?

A. Well, I think their fees would amply provide for the employment of engineers.

Q. That is, the saving of fees would equal the salary?

A. Yes, sir. I want to state that here as early as 1896 I advocated the abolition of the City surveyors.

Q. Of course, as you said before, this is a matter of ordinance, is it not?

A. Yes, sir.

Q. Not within the discretion of the Borough President?

A. It is not.

Q. Now, who do you say has charge of the repaving work?

A. The Chief Engineer.

Q. Repaving work is not assessed directly on the property, is it?

A. No, sir; it is paid by the City at large and it is at the discretion of the Borough President to invest that money in pavements.

Q. Do you happen to know how the money is raised that is used to pay for repaving?

A. It is raised by bonds, I understand.

Q. Known as corporate stock, is it not?

A. I do not know about that.

Q. Now, what classes of pavement are being laid at present by the Bureau in repaving work?

A. They lay sheet asphalt pavement, block asphalt pavement and wooden block pavements, also granite block pavements.

Q. Well, are granite block pavements being laid in repaving?

A. Yes, sir.

Q. Mr. Klein, have you ever had occasion to examine the specifications for sheet asphalt paving or repaving used at the present by the Bureau of Highways?

A. Yes, sir.

Q. Can you say whether the same contract and specifications are used for repaving work as are used for original paving work?

A. Yes, sir.

Q. Well, did you find those specifications to be in your opinion adequate and sufficient in all respects to insure the City good and durable pavements?

A. No, sir, I do not think so.

Q. Did you find them to be in any respects insufficient or imperfect?

A. Yes, sir, in several respects.

Q. Well, now, did you make notes of what you found?

A. I did.

Q. Now, will you tell us what you found in those specifications to criticise? My question applies now only to sheet asphalt.

A. The first I had to criticise in the specifications for sheet asphalt, that they provide for relaying the old stone blocks, the original pavement of the street, as a foundation for the new sheet asphalt pavement. This does not give satisfactory results, except as a matter of economy in first cost, which is very slight. The practice of relaying the old stone blocks was criticised by me something like eleven years ago, when Mr. Brookfield was Commissioner of Public Works.

Q. What did you find to be the result of relaying old stone blocks as a foundation?

A. I found that the asphalt pavements go to pieces very rapidly.

Q. What is the explanation of that?

A. The unsuitable foundation itself. These blocks are never properly bedded and the continuous—the rocking, you may say—the rocking movement produces the pavement to crack and disintegrate and wear away.

Q. That produces wear and tear defects, then, is that right?

A. Yes, sir.

Q. This stone block pavement foundation is slightly cheaper than concrete, is it not?

A. Yes.

Q. Will you tell us whether in your opinion the saving in the case of the stone block foundation equals the expense due to the more rapid wear and tear over the stone blocks?

A. It does. I believe relaying old stone block pavement is a mistake and that practice should not be continued at all.

Q. Defects due to wear and tear over such foundation are covered by the contract, the guaranty of maintenance, are they not?

A. Yes, sir.

Q. What do you say of that clause of the specifications providing that the asphalt used shall contain ninety per cent. bitumen?

A. This clause excludes one kind of asphalt, that is, Trinidad pitch, out of which material first-class streets have been built in the past, and I do not see any reason to exclude that material from pavements.

Q. Have you anything else to say about that clause? Is there any reason why refined asphalt should contain ninety per cent. of bitumen?

A. None whatsoever.

Q. Why not?

A. The amount of bitumen, the percentage of bitumen in asphalt surfaces, should be, according to specifications,

from nine to twelve and one-half per cent. Some natural bitumens are nearly pure, that is, they contain nearly one hundred per cent. soluble in carbon bi-sulphide.

*Q.* What is done with them to make a wearing surface?

*A.* To those are added sand and powdered stone to make a mixture, paving mixture, composed of such particles which would compact so perfectly as not to contain any voids. In one case, in Trinidad pitch, this mineral matter is in the pitch by nature, while to the more pure bitumens it has to be put in artificially; that is the only difference. Some of the best looking streets in this country have been made with this Trinidad asphalt, and for that reason I do not see the right to exclude it.

*Q.* How about the action of water upon Trinidad asphalt, Mr. Klein?

*A.* Water has an action on all asphalt pavements, no matter where they come from. The only way to prevent a rapid action of water in asphalts is by thorough compacting.

*Q.* How is thorough compacting achieved, Mr. Klein?

*A.* It is done by rolling. First it is done by the proper selection of the different components, different mineral components, regarding sizes, which will when rolled or compressed render a mass which contains the least possible voids.

*Q.* Then the action of water upon asphalt you think is in proportion to the amount of compression the surface receives?

*A.* Yes, sir. One preventative is also the overcoming of water accumulating on the foundation, and the remedy for that is a proper subsurface drainage.

*Q.* What do you say as to the clause requiring a certain amount of bitumen to be soluble in petroleum-naphtha?

*A.* I believe that this clause—that the solubility of bitumen in petroleum-naphtha has not anything to do with the lasting quality or the durability of a pavement made from it.

*Q.* Well, does that clause as it now reads restrict the use of any particular kind of asphalt?

*A.* This clause don't exclude Trinidad pitch.

*Q.* That is not what I asked you?

*A.* Yes, it may tend to exclude some asphalts which have been used in the past with good results.

*Q.* Is that clause contradictory in any way?

*A.* It is.

*Q.* How?

*A.* It says—there is appended to this clause an alternative, which entirely nullifies its value, if the alternative is exercised. This alternative statement provides that if the bitumen does not contain the required percentage soluble in naphtha, but if satisfactory in other respects to the engineers, I suppose, the deficiency may be supplied by other means satisfactory to the engineer, such as will bring it up to the required standard. It is, therefore, plain that under the present ruling the former portion is either unnecessary or, if necessary, should not be subject to change.

*Q.* Do you know why that particular clause was ever inserted in the specifications?

*A.* Giving the engineer privilege to decide?

*Q.* No, the percentage soluble——

*A.* Oh, that is an old relic from the specifications which were written out by some official of the Barber Asphalt Company; it is an old relic. I suppose they forgot to eradicate that.

*Q.* Mr. Klein, you said you called attention in 1896 to the inadvisability of using old stone blocks for foundation?

*A.* Yes, sir.

*Q.* Have you called attention to that at any time since 1896?

*A.* Yes.

*Q.* More than once?

*A.* Oh, more than once, at every occasion I had.

*Q.* Well, at how frequent intervals, can you tell?

A. Maybe once a year. I have spoken to Mr. Olney about this very subject several times.

Q. What answer did you get from Mr. Olney when you spoke to him about it?

A. Well, I think he shared my view of the matter. He did not promise to see that my recommendation was carried out.

Q. What have you to say about the clause requiring a heavy petroleum oil?

A. The requirements for the heavy petroleum oil used in the preparation of the asphaltic cement really defines what is known as a reduced oil. This material is one of the most valuable lubricating agents known and there is no such material on the market which could be used for paving, except at prohibitive prices. There is no occasion for such oil to be used. The specifications should call for petroleum tar free from water, light oils and paraffine oils as far as practicable.

Q. What kind of oil is actually used, Mr. Klein?

A. Well, they use what they call petroleum residuum, which is a product of the petroleum refining process.

Q. Is that what you call petroleum tar?

A. Yes.

Q. Then they do use what you say the specifications should call for?

A. They do use it. It is a misnomer.

Q. But the specifications actually call for something else, is that correct?

A. They do, yes, sir.

Q. What do you say concerning the clause providing how the wearing surface shall be composed or made up?

A. Well, I should say the amount of bitumen which is specified now to be not less than nine and one-half nor more than twelve per cent. should read from nine to thirteen per cent. We found very fine paving mixtures to contain as high as thirteen per cent.

Q. What is the purpose of these requirements, Mr. Klein?



A. I suppose the purpose of those requirements is to have them carried out to the letter.

Q. Well, what I meant to ask you was what results are they supposed to produce with respect to the pavement?

A. The requirements are supposed to produce the best pavement which can be made.

Q. I mean to ask you what particular function this provision requiring not less than nine and one-half nor more than twelve per cent. of bitumen is supposed to perform?

A. The amount of bitumen, the limits given here are supposed to provide a mixture which will not crack in cold weather and will not become too soft in the hottest day in summer.

Q. Suppose you had twenty per cent. of bitumen in the wearing surface, what would be the result of that?

A. The result would be that it would become so soft in the summer that it would be impossible to travel on it.

Q. If you had six per cent., what would be the result of that?

A. It would disintegrate.

Q. Why?

A. There would not be binding material enough, which tends to keep up the cohesion of the various particles, to keep it together, it would rapidly disintegrate.

Q. What do you say with respect to the provisions concerning the mineral aggregate of the wearing surface?

A. The mineral aggregate is called in the specifications inorganic dust.

Q. Anything else?

A. I think that is not a very proper term, as inorganic dust may contain material which is not the proper material to be used in the asphalt mixture.

Q. How do you think that material known here as inorganic dust should be described?

A. I would call it pulverized stone dust.

Q. Is there any other ingredient or component part of the mineral aggregate besides inorganic dust?

A. Sand; yes, sir.

*Q.* What do you say with regard to the present provisions as to the grading or sizing of that sand and inorganic dust?

*A.* The specifications are very indefinite about this. This grading matter is one which of late has received more attention than formerly from engineers in general, and it is safe to say that definite requirements for the proportion of the various sized grains to accomplish such result could be made. We have in our laboratory of late made quite some experiments, and I hope in a very short time to publish some very interesting results.

*Q.* Do you consider that the present specifications are accurate enough in fixing the sizes?

*A.* No, sir.

*Q.* Well, in what respects do you think they are not sufficiently accurate?

*A.* They do not specify the various sizes of particles of mineral aggregate. The function of inorganic dust is largely to reduce the voids.

*Q.* Now, what is the result of the failure to specify accurately the sizes of the mineral aggregate likely to be?

*A.* Well, the result is disintegration of the pavements.

*Q.* Why?

*A.* Because the voids are not filled, they act like a sponge.

*Q.* Have you ever made any recommendations either in respect to the soluble test, concerning which you testified a few minutes ago, or concerning the wearing surface mixture?

*A.* You mean with reference to the method used in the Bureau of Highways?

*Q.* Yes.

*A.* I have had an interview with the chemist of the Bureau of Highways, Mr. Kleeberg, and we have had occasion to criticise his method of determining the amount of bitumen soluble in carbon bi-sulphide.

*Q.* I asked whether you had made any recommendations with respect either to the soluble test, the petroleum-

naphtha test, or ever made any recommendation about eliminating them?

A. Yes, I think I did.

Q. Do you know that you did?

A. Yes.

Q. And did you suggest anything to take its place?

A. In 1903 I was asked to get up specifications for asphalt pavements, which were published by——

Q. Asked by whom?

A. By Mayor Low, which are published in a pamphlet published by the Commissioners of Accounts, which had quite a large circulation.

Q. Was that petroleum-naphtha soluble test provided for in those specifications?

A. I think it is, I am not certain, but I know I recommended it.

Q. What did you recommend as to that in those specifications?

A. I recommended that it should be done away with. It was of no consequence.

Q. Did you consider that it was necessary to substitute anything for it, in its place?

A. No, I did not. I considered the solubility test of several solvents was only to distinguish various bitumens amongst themselves, but it is no proof of the quality of a bitumen at all.

Q. Did you at any time make any criticisms or recommendations heretofore as to the mineral aggregate provisions in the present specifications?

A. No, sir. Our examination of the grading is only of recent date, and the report is not ready yet; our work is not so far advanced in regard to be able to publish our findings.

Q. What have you to say as to the method of analysis used by the chemist of the Bureau in determining the percentage of bitumen in the paving mixture?

A. I do not consider the method employed by the chemist of the Bureau of Highways correct. He extracts the

asphaltic mixtures with carbon bi-sulphide. He evaporate the solvent and burns the residue. This residue is composed of aluminic and ferric oxides; these oxides are not part of the mineral aggregate, but are part of the bitumen.

*Q.* That is, they are compound parts, chemically speaking, of the component known as bitumen?

*A.* Yes, sir. They are organic acids which are soluble in carbon bi-sulphide or chloroform and will pass through the filter.

*Q.* Do they form any part of the mineral aggregate, so-called?

*A.* No, sir; they are part of the bitumen itself.

*Q.* Then if you weigh those with the mineral aggregate, will you get a result which is greater than the mineral aggregate itself?

*A.* If you add them to the mineral aggregate, if you add that residue to the mineral aggregate, you get a smaller amount of bitumen and a larger amount of mineral matter.

*Q.* Is that what the chemist does?

*A.* That is what he does.

*Q.* Then the result of his analysis must be erroneous, is that right?

*A.* That is what I say in that regard.

*Q.* And incorrect?

*A.* Yes, sir. We have proven our contention to be correct; if you precipitate from a solution of asphalt in carbon bi-sulphide—if you precipitate that with an excess of petroleum ether, you will get a precipitate which upon ignition will render the same residue of the aluminic and ferric oxides which we get through evaporating the carbon bi-sulphide in Mr. Kleeberg's method.

*Q.* Have you talked with the chemist of the Bureau of Highways on this subject?

*A.* I did. He was over to see me on several occasions.

*Q.* Did you ask him what experience he had had in this question or in this work of analysis?

A. I did.

Q. Did he tell you?

A. He told me he had no previous experience at all in this line of work. That he was an advocate and a believer in the methods and theories of Mr. Clifford Richardson, the chemist of the Barber Asphalt Company, who published a book on that subject or wrote several papers on the matter.

Q. Now, Mr. Klein, what do the specifications, for sheet asphalt paving, remember, provide as to the submission of samples to the chemist for analysis?

A. They provide that with the bid samples of the different materials should be submitted for test. They are then turned over to the chemist. They bear the signatures—or at least they bear tags with the name of the company who furnished the material and the nature of the material.

Q. Then the chemist knows when he makes his analysis whose sample he is analyzing, is that so?

A. He does.

Q. He knows who the bidder is who submitted that sample?

A. He does; yes, sir.

Q. This is done at the time when the bids are submitted, is that right?

A. Yes, sir.

Q. The name of the lowest bidder becomes known at the time when bids are opened, is not that so?

A. It is.

Q. Then, the chemist knows on analyzing a sample whether or not he is analyzing the sample of the lowest bidder, is that so?

A. He does; yes, sir.

Q. What is the result if the chemist rejects a sample after analysis?

A. The contractor or the bidder is informed of the result of the examination and is asked to submit other samples, or the contract is awarded to the next highest

bidder. I think that lies entirely within the province of the Borough President.

*Q.* In this connection, can you tell us what the specifications for wood block paving provide as to the submission of samples?

*A.* Yes, sir; the wood block specifications provide that samples of wooden blocks shall be furnished five days in advance of the opening of the bids.

*Q.* Does the chemist in that case know who the bidders are whose samples he is analyzing?

*A.* Yes, sir; he does.

*Q.* Then in that case the chemist knows five days before bids are submitted who the bidders are to be?

*A.* Who is bidding on the work, yes, sir.

*Q.* And knows the sample of each bidder by name?

*A.* He does.

*Q.* Is it possible for the various bidders in the case of wood block to find out from the chemist of the Bureau who the other bidders are?

*A.* If he gives it away, I guess it is.

*Q.* It leaves that possibility open, does it not?

*A.* It does, yes, sir.

*Q.* Is this case of wood blocks the only one where it is required that samples be submitted before the bids are opened?

*A.* According to my knowledge, it is the only instance.

*Q.* Now, Mr. Klein, going to the specifications for asphalt block?

*A.* Yes, sir.

*Q.* What have you to say as to the present requirements of the specifications as to the size of the block to be used, first telling what the present specifications provide for.

*A.* The present specifications provide for the size of blocks to be five inches wide, three inches deep and twelve inches thick, but they permit a variation of a quarter of an inch from these dimensions either way.

*Q.* Well, now, what have you to say about that?

*A.* I have to say that is too much of a variation.

Q. In what dimensions?

A. In the vertical dimensions, in the depth.

Q. Why?

A. Because we found the difference of thickness of blocks to be the very initial cause of disintegration.

Q. How?

A. If you take an extreme case, one block may be two and three-quarter inches in thickness only and is acceptable; alongside of that block you put one block which is the other limit, that is three and one-quarter inches high, which would make the first block lying on the same foundation a half inch higher than the second one. Wheels running over that edge would simply grind it down and cut it off and start it to disintegrate. I have been visited by several manufacturers of blocks who say a variation of an eighth of an inch, that is an eighth of an inch each way, would not be a hardship upon them at all, and could be easily done, and I recommended that often.

Q. What do you think of a three-inch depth for an asphalt paving block?

A. Well, if the block is well made, it should be thick enough, if the foundation is proper.

Q. For heavy traffic?

A. Yes, sir.

Q. Do you know of any Borough where the limits are less than they are here?

A. I do, the Borough of Richmond.

Q. What are the limits of variation there?

A. One-eighth of an inch either way. They adopted that on our recommendation.

Q. When did you make that recommendation?

A. A year or two ago.

Q. Was that recommendation also made for this Borough?

A. It was made verbally, yes.

Q. Was it made verbally for this Borough?

A. Yes, to Mr. Olney.

Q. Was it made verbally for the Borough of Richmond?

A. No, it was in writing.

Q. Is it necessary that an asphalt block should be dense?

A. The density of a block is the main feature in regard to its lasting quality.

Q. What have you to say with regard to the present specifications which cover this question, first telling us what they are?

A. The density of a block depends upon the compression it receives and the grading of the mineral aggregate as mentioned before under the sheet asphalt.

Q. Do you consider that the mineral aggregate is as important in the case of a block as in the case of a sheet asphalt?

A. Just as important, if not more.

Q. Well, now, what do the present specifications provide in this matter?

A. The present specifications are not specific enough regarding the sizes and grading of the mineral aggregate.

Q. Could they be made more specific?

A. They could be, yes, sir.

Q. How?

A. By specifying the different sizes of crushed rock to be used.

Q. Do you think that the present lack of definiteness in this matter has resulted in any harm in the case of any blocks laid here?

A. Yes, sir, I do.

Q. Where?

A. Well, mostly every street where the asphalt block went to pieces.

Q. Can you name one or two of those streets?

A. I passed several streets on my inspection trip on the 6th of April, but I am unable to tell you the number of the streets and blocks where we came across them, but I found quite a few blocks where the asphalt blocks were in bad condition, disintegrating.

Q. Can't you name any street where you found that condition?



A. I could not, unless I looked the matter up, and I will testify to it the next time.

Q. Can you by reference to your notes fix the numbers or names of the streets?

A. No, sir, I could not, because we found the asphalt blocks—those streets laid with asphalt blocks in much better condition than we found the sheet asphalt.

Q. Have you notes in your office which will refresh your memory on that question?

A. No, sir.

Q. Now, I asked you a few minutes ago and I think you did not answer it how the provisions of the specifications could be made more definite in the matter of the mineral aggregate of the blocks?

A. The specifications could be made more definite by specifying the sizes, the different sizes of the particles of mineral aggregate. We have some data in hand in reference to this very important feature by a research commenced some time ago, but the pressure of other work prevented its full development. I am, however, in a position to give the following figures for the grading of the stone sizes which may be of value:

Mineral aggregate of asphalt blocks for minimum percentage of voids.

Size of material passing 200 sieve, 11.4.

Passing 100 sieve, retained by a 200, 3 per cent.

Passing 60 sieve—that is sixty meshes to the lineal inch—retained on the 100 sieve, 5½ per cent.

Passing a 40 sieve, retained on a 60, 5.5 per cent.

Passing a 30 sieve, retained on a 40, 5.2 per cent.

Passing a 20 sieve, retained on a 30, 7.1 per cent.

Passing a 16 sieve, retained on a 20, 4.1 per cent.

Passing a 10 sieve, retained on a 16, 3 per cent.

Passing a one-eighth of an inch sieve, retained on a No. 10, 16.2.

Passing a quarter of an inch sieve and retained on an eighth of an inch, 29 per cent.

These percentages include the stone dust which may be added.

*Q.* Have you ever recommended a provision similar to that which you have just read to us?

*A.* Yes, sir.

*Q.* When?

*A.* I made a report for revision of the specifications for asphalt blocks on the request of Mr. Cromwell, President of the Borough of Richmond, and this report contains this table recommending that it be included in the specifications.

*Q.* Can you tell us when, about, that report was made?

*A.* I could not tell without reference to my report.

*Q.* Can you tell us what year it was made?

*A.* About a year ago.

*Q.* Was that report brought in any way to the notice or attention of the Borough President of Manhattan?

*A.* I don't know about that. It has been brought to the attention of the Chief Engineer of the Bureau of Highways through the principal Assistant Engineer of the Borough of Richmond.

*Q.* What have you to say as to the provision of limits to the amount of bitumen in the mixture used to manufacture the block?

*A.* I would recommend that the limits be changed.

*Q.* What are they now?

*A.* Now, they are from  $5\frac{1}{2}$  to  $7\frac{1}{2}$  per cent. of bitumen soluble in carbon bi-sulphide.

*Q.* What would you have them?

*A.* I would have them from 6 to 8 per cent.

*Q.* Why?

*A.* We analyzed quite a number of asphalt blocks and we found the best block to contain nearly 8 per cent. This induced me to make that recommendation.

*Q.* Why is so large a per cent. necessary or advisable, Mr. Klein?

A. To make the block cohere.

Q. That is, it needs that amount of——

A. Of sticky matter, you may call it, yes.

Q. What have you to say as to the method used by the chemist of the Bureau, first telling us what that method is, what analysis of the mixture used to make paving block with respect to determining the amount of bitumen?

A. In analyzing a block as to the amount of bitumen it contains, the block is broken up, or a portion of the block, and ground up in a mortar, and of that the chemist of the Department of Highways weighs 10 grammes, and extracts those ten grammes in a boxlet, extraction apparatus. We in our practice in our laboratory take one hundred grammes, for the very reason that 10 grammes, containing some of the large stone and the mineral aggregate, is in such a small quantity that you can never get results if you make analysis in duplicate, as we always do. In our laboratory we never use less than 100 grammes, which I have found to be the right amount.

Q. Is the method now employed by the chemist of the Department of Highways accurate or inaccurate?

A. Inaccurate.

Q. Do the specifications include any provisions for physical tests of the finished block?

A. They do, but those requirements are very indefinite, only mentioning the specific gravity, abrasion, crushing and tensile strength tests should be made if the engineer shall so decide.

Q. Do the specifications provide what those tests shall be?

A. No, sir.

Q. Are those tests ever made?

A. In accordance with the statement of Mr. Olney they were only made in one instance, those tests were made over in Hoboken at Stevens Institute, but the results of those tests were never used for practical purposes.

Q. You say they were only made in one instance. What do you mean by that?

A. Only one set of tests were ever made.

Q. That is, in the case of one contract?

A. In the case of one contract.

Q. And what has been done in the case of the rest of the contracts let?

A. No such tests have been made.

Q. The matter has been merely passed, is that right?

A. The blocks were passed along without those tests.

Q. Well, now, why were the results of the tests—where did you say they were made?

A. Stevens.

Q. Why were the results of the tests made at Stevens never used?

A. I could not tell you that.

Q. How do you know they were never used?

A. Because I was told so by Mr. Olney.

Q. Did you hear what the results of those tests were?

A. No, sir.

Q. Do you know who recommended the making of those tests?

A. I could not tell you that.

Q. Did you ask Mr. Olney as to that?

A. I did not.

Q. Do you know whether those tests were made during the employment of Mr. Whinery as consulting engineer?

A. I don't know anything at all about the time when they were made, but I shouldn't wonder if they were made at the suggestion of Mr. Whinery.

Q. But you do not know?

A. I do not know, no, sir.

Q. Now, did what you said concerning the test as to solubility in petroleum naphtha, as well as the provision for the asphalt containing 90 per cent. of bitumen, apply as well to asphalt blocks specifications as to sheet asphalt specifications?

A. Yes, sir, they are the same clauses.

Q. What have you to say as to the wood block specifications?

A. I mentioned before that the specifications required samples of wood blocks to be delivered at the Bureau of Highways previous to the opening of the bids.

Q. Were you here during the testimony of Mr. MacNeille?

A. Partly.

Q. Do you recollect what Mr. MacNeille testified to concerning the rejection of the bid of one Leopold, which was the lowest bid on a certain contract?

A. No, sir.

Q. You did not hear that?

A. No, sir.

Q. You said, did you not, Mr. Klein, that in case of rejection by the chemist of the samples submitted, either new samples are demanded or the contract is let to the next highest bidder?

A. Or awarded to the next highest bidder, yes, sir.

Commissioner MITCHEL—The stenographer will note that the testimony of the witness, MacNeille, concerning the bid of Leopold appears on page 733 of the record.

Q. Did you make any examination to learn where those portions of the specifications which deal with the definition of the pavement proper, that is, the wood block, have their origin?

A. I did.

Q. Where did you make those inquiries, Mr. Klein?

A. I inquired of Mr. Olney, the Chief Engineer.

Q. Did you ask Mr. Olney who drew those specifications?

A. I asked Mr. Olney if he drew them, and he told me no.

Q. Did he tell who drew the specifications for wood block pavement?

A. He did.

Q. Well, who drew them?

A. The specifications for the wood blocks were drawn

by a gentleman by the name of Kummer, who is a director and superintendent, I think, of the United States Wood Preserving Company.

*Q.* Then an official of the United States Wood Preserving Company drew the specifications for wood block paving used by this Borough, is that true?

*A.* Yes, sir.

*Q.* And Mr. Olney told you that?

*A.* He did.

*Q.* Were those specifications submitted by an official of the United States Wood Preserving Company accepted as drawn by him, or were they changed before they were accepted?

*A.* They were accepted as drawn by the Wood Preserving Company.

*Q.* Did Mr. Olney tell you that?

*A.* He did, no changes made at all.

*Q.* Have those specifications ever been changed since they were first submitted?

*A.* They have, last year.

*Q.* Did you inquire to learn who suggested and who drew the clauses providing for the change in the specifications?

*A.* I did.

*Q.* Whom did you inquire of concerning that?

*A.* Mr. Olney, at the same occasion.

*Q.* Who suggested those changes and who drew the clauses?

*A.* The same official of the United States Wood Preserving Company, Mr. Kummer.

*Q.* Then, the Bureau of Highways changed the specifications at the request of an official of that Company?

*A.* At the request of Mr. Kummer, yes, sir.

*Q.* And he drew the clauses providing for the change, is that right?

*A.* He did.

*Q.* Mr. Olney told you that?

*A.* He did.

*Q.* Was any attempt made or do you know whether any attempt was made to examine those specifications by the Bureau of Highways to determine whether they were adequate to protect the City or not?

*A.* No, sir.

*Q.* No what, what do you mean by no?

*A.* No attempt has been made.

*Q.* How do you know that, Mr. Klein?

*A.* Well, because I believe that the highway officials do not consider themselves competent on that question.

*Q.* Yes, but what do you base that belief on, any information?

*A.* Yes, on a statement of Mr. Olney.

*Q.* Well, you say that no attempt was made to determine whether those specifications were adequate or not. Now, what information have you on which to base your statement that no examination was made?

*A.* The information I have is from the statement of the chemist, who told me that he had not been at all asked when the specifications were changed and he doesn't know why they have been changed.

*Q.* Did Mr. Olney have anything to say on that question?

*A.* No, he says they were handed to him and he took them as he got them.

*Q.* He told you that he took them as he got them?

*A.* Yes.

*Q.* Did he tell you whether he had made any investigation or examination of the specifications to determine whether they were adequate or not?

*A.* No.

*Q.* Were the first specifications submitted by the Wood Block Company or the official of the Company accepted in that same way or were they examined to determine whether they were adequate or not?

*A.* No.

*Q.* Were the first specifications submitted by the Wood Block Company or the official of the Company accepted

in that same way or were they examined to determine whether they were adequate?

A. I believe they were accepted in the same way.

Q. Were you so told by Mr. Olney or by the chemist?

A. That is my impression.

Q. Well, can you recollect definitely whether you were so told by Mr. Olney?

A. Yes, he was given them and he accepted them.

Q. Did he tell you so?

A. Yes.

Q. Now, will you tell us just what the provisions are in the new specifications which are variant from the old specifications?

A. The new specifications permit the use of different classes of wood. The old specifications only permitted long leaved yellow pine to be used, while the new specifications include Norway Pine, black gum and tamarack as well.

Q. How does the cost of Norway Pine, black gum and tamarack compare with the cost of long-leaved yellow pine?

A. I should say the black gum was the cheaper, I should say about 15 per cent. cheaper than long-leaved yellow pine.

Q. And the other two?

A. The others are a little less.

Q. A little less than black gum?

A. They cost more than black gum, black gum is the cheapest.

Q. How do they compare with yellow pine?

A. I could not tell you, not having followed up the prices lately. I only inquired into the price of black gum and yellow pine as a comparison.

Q. These specifications as now in force allow the use of black gum in the discretion of the contractor, is that right?

A. They do.

Q. Did you have any conversation with the chemist as to the suitability of that wood for use as wood block?



A. Well, he said that the black gum blocks absorb considerable more water and appear to be more porous than yellow pine blocks, which I believe he is very right in. They also do not appear to be as completely filled with impregnating or preserving material as the yellow pine blocks.

Q. What is the impregnating material?

A. Creosote of coal tar and rosin.

Q. That is the material injected into the blocks?

A. Injected into the blocks, yes, sir.

Q. In the process of preservation, is that right?

A. That is right.

Q. Were you told how this request for a change in the specifications made by that official of the United States Wood Preserving Company was proferred to the Bureau?

A. The request to change the old specifications were sent to the Bureau in the shape of a letter addressed to the President.

Q. That letter was addressed to the President of the Borough?

A. Yes, sir, Mr. Olney told me so.

Q. Mr. Olney told you that?

A. Yes, sir.

Q. Did the change in the specifications involve any other matters than the change in the character of the wood to be used?

A. They do.

Q. What?

A. They also include the reduction of the amount of rosin which is used in the preserving mixture. The old specifications required 50 per cent. of rosin to be used. The new specifications cut it down to 25.

Q. Do you know whether the price of rosin has risen or fallen of late?

A. It has risen, according to information.

Q. What do you consider as to the necessity or absence of necessity for the use of rosin in preserving such block?

A. Well, you mean the amount, the percentage of rosin to creosote ?

Q. Yes. Do you consider that the provision for 50 per cent. of rosin, which provision has been changed, was or was not necessary ?

A. I always believed that 50 per cent. was more than the creosote could absorb or dissolve, and I believe if yellow pine is used for blocks, that 25 per cent. is sufficient, as yellow pine in itself, by itself contains quite a large amount of rosin.

Q. Well, what about the other kinds of wood that are now permitted to be used ?

A. I do not think that 25 per cent. is enough for black gum, which does not contain any rosin.

Q. Then, you think the specifications have been so changed as to allow the use of insufficient rosin to preserve black gum, which is also allowed to be used ?

A. That is my opinion.

Q. Now, what have you to say with regard to the provisions of the specifications as to the character of the oil to be used ? Tell us first what they do provide as to that ?

A. Well, the specifications provide that the creosote shall be heavy oil of coal tar. There is also creosote derived from the distillation of wood, and this creosote has been used, according to my knowledge, on many important works for creosoting and preserving wood and has been used with great success, and I do not see why this organic creosote, as you might call it, derived from the wood, could not be allowed also.

Q. Is it excluded at present ?

A. It is excluded by the term of coal tar.

Q. Would the allowance of such material tend to broaden the field of competition ?

A. I think it would, because I know there are several concerns down south who use this kind of creosote for railroad work, creosoting sleepers and piles. They would, according to my idea, undoubtedly enter the field of competition.

*Q.* What have you to say with regard to the provision of the specifications for the use of a solvent in testing the wood blocks? Tell us first what that provision is?

*A.* The specifications require that fine turnings should be taken off from the block to be used for analysis of the block. We have tried that, to cut off fine turnings, but we got very unreliable results, because if you cut off a piece here and there it does not give you a fair average of the whole block, so I introduced a circular saw with which we cut the entire block through and used the sawdust from three cuts, which are cut through the entire block for analysis.

*Q.* When you say you introduced that, what office do you refer to?

*A.* I refer to the chemical and physical laboratory of the Commissioners of Accounts, of which I am in charge.

*Q.* Did you recommend the introduction of the same system in the Bureau of Highways?

*A.* I did.

*Q.* When did you recommend that, Mr. Klein?

*A.* I think we got that saw about six or eight months.

*Q.* Was that suggestion adopted by the Bureau?

*A.* No.

*Q.* To whom did you suggest it?

*A.* I think Mr. Olney came over on some matter and I showed him our plant. Then, those turnings, as they call them, are analyzed by means, according to the specifications, by means of sulphuric ether, which is a very dangerous chemical to handle. For that reason I thought of using another solvent, and I found acetone a very valuable solvent, which will solve all the ingredients, except the fibre of wood.

*Q.* Now, what is the solvent at present used?

*A.* Sulphuric ether.

*Q.* What have you to say as to the use of that with regard to the safety of it?

*A.* It is very dangerous.

*Q.* How is it dangerous?

A. Catches fire very easy.

Q. Dangerous in any other respect?

A. No, but expensive also.

Q. Well, what effect has the use of that solvent as to encouraging or discouraging tests of this kind?

A. Well, I should not use it in my laboratory.

Q. Is there any element of personal danger to the analyst?

A. There is.

Q. Then, the use of that solvent tends to discourage analysis on the part of the chemist, is that right?

A. It discourages me.

Q. What have you to say with respect to the period of guaranty provided for in the case of wood block specifications, and tell us first what that period is?

A. The present period of guaranty is ten years. I believe that ten years is too long a period.

Q. Why?

A. Because the City has to pay so much for the pavement proper on account of the bonds, the security the contractor has to furnish to keep the street in proper repairs.

Q. You say that the City has to pay a higher price for the pavement because of the long guaranty?

A. Yes, sir.

Q. Why?

A. Because the contractor has to pay for his bond, and he certainly will not pay it himself, he expects the City to pay it, and he charges it in his contract price.

Q. Do you mean to say that a long period of guaranty causes the contractor to bid a higher price for the pavement?

A. It does.

Q. Was that found to be the case with sheet asphalt pavement?

A. It was.

Q. What were the periods of guaranty in sheet asphalt pavements some years ago?

A. It used to be fifteen years, and then it came down to ten, and now it is five.

*Q.* Why was it reduced?

*A.* As I understand it, our office was very active in promoting a reduction of the guaranty period and I think we finally succeeded.

*Q.* Why were they reduced, what was the reason for the reduction?

*A.* On account of the cost.

*Q.* Was it the same reason you have just named for the reduction of this?

*A.* Same reason.

*Q.* You say this period of guaranty is ten years?

*A.* Yes, sir.

*Q.* Do you know why the period of ten years has been provided?

*A.* Well, I believe because this wood block pavement was a new thing and the officials of the Highway Department lacked information as to the durability of the material, so I believe that they thought it would be better to put that sort of pavement on a longer guaranty than five years.

*Q.* Are you acquainted with any of the streets paved with wood block?

*A.* I am.

*Q.* Have any of those streets got defects in them due to wear and tear?

*A.* Oh, yes.

*Q.* Do you know whether the Bureau of Highways rigidly enforce the contract of guaranty?

*A.* On the wood block pavements?

*Q.* Yes?

*A.* I do not know from experience, no.

*Q.* Do you know of any wood block pavements where such defects have existed for any considerable period of time?

*A.* I do.

*Q.* Then you mean that in this case a longer period of guaranty was provided for which tended to raise the price, the initial price of the pavement, is that right?

A. Yes.

Q. And the Bureau fails to enforce that contract of guaranty on some streets that you know of, is that right?

A. Yes.

Q. Are you acquainted with the prices charged for concrete foundation under wood block pavement?

A. Yes, sir.

Q. How do those prices compare with the prices for concrete foundation under other classes of pavements?

A. They seem to charge more for concrete foundation under wood block pavement than for others. I should say from a dollar to a dollar and a half more.

Q. Is there any reason for that, Mr. Klein?

A. None whatsoever.

Q. That is just an arbitrary charge?

A. It is an arbitrary charge.

Q. Now, with respect to all classes of contracts for paving and repaving, have you any criticism to make on the practice of the Bureau as to the letting of such contracts?

A. I have.

Q. What is it?

A. I would recommend that all construction work should be advertised for and awarded as early in the year as possible, in order that the construction work of the Department may be carried on at such times in the year as are best equipped for it.

Q. What are those times?

A. Spring, summer and fall.

Q. When are such contracts advertised at present?

A. They are advertised for all year round; sometimes they start in very late, and they run the danger of having their concrete in the foundation frozen.

Q. What would be the result of that?

A. Well, that would ruin the foundation, to a certain extent, and through the foundation ruin the pavement, because the pavement is nothing else but a wearing sheet, and the pavement has no rigidity by itself.

*Q.* What do the specifications provide—I am now referring to the specifications for sheet asphalt and block asphalt pavement—what do they provide as to the inspection of the manufacture of the asphalt paving mixture?

*A.* They provide that the plant of the contractor shall be open at all times to the inspection of the Chief Engineer or his subordinate.

*Q.* Does that mean that the Chief Engineer or his subordinate has the privilege of inspecting when he so desired?

*A.* It does.

*Q.* Do they provide anything else?

*A.* No.

*Q.* Is that in your opinion a sufficient safeguard of the City's interests?

*A.* It is not.

*Q.* Why not?

*A.* Because the plant is very seldom inspected by anybody.

*Q.* Can you state how often such inspections are made?

*A.* I think they are very rarely made indeed.

*Q.* How often ought they to be made?

*A.* There ought to be an inspector stationed there all the time whenever there is any work going on.

*Q.* Would anything less than that be sufficient to safeguard the interests of the City?

*A.* No, sir.

*Q.* You say that is not done at present?

*A.* It is not done.

*Q.* What do the specifications for wood block pavement provide in that matter?

*A.* They provide for the presence of an inspector, I believe, at the plant.

*Q.* All the time?

*A.* All the time.

*Q.* What do they provide as to the payment of the salary of that inspector?

A. This inspector is paid by the contractors at the rate, I understand, of \$2,500 a year.

Q. What contractor is that ?

A. United States Wood Preserving Company.

Q. Is an inspector kept at the plant of any other company ?

A. No, sir.

Q. Other companies have had contracts for the laying of wood block pavements, have they not ?

A. Yes, sir.

Q. Were inspectors stationed at the plants of such companies ?

A. Those companies have no plant.

Q. Those companies have no plant ?

A. No, sir.

Q. How do they procure and manufacture their wood blocks ?

A. They buy their supply of wood blocks which are used in their contracts from the United States Wood Preserving Company.

Q. Then, all the other contractors buy from the United States Wood Preserving Company, is that right ?

A. That is what I understand to be true.

Q. You say that an inspector is stationed at the plant of the United States Wood Preserving Company ?

A. Yes, sir.

Q. Do the specifications themselves provide that he shall be paid by the United States Wood Preserving Company ?

A. Yes, sir.

Q. What is that inspector supposed to do ?

A. This inspector is supposed to inspect the wood first; I understand that is his principal qualification; he has no knowledge of chemistry or physics at all, but he is a practical lumberman.

Q. What is he supposed to do ?

A. He is supposed to look out for the interests of the City, seeing first that no second growth timber is being



cut up for blocks; secondly, to see that the process is carried out in accordance with the specifications.

*Q.* Is he supposed to report violations of the specifications that he may find?

*A.* He is.

*Q.* Then, he is there as the representative of the City, is he?

*A.* He is there as a representative of the City.

*Q.* He is supposed to safeguard the interests of the City, is that so?

*A.* That is his duty.

*Q.* And you say he is paid by the United States Wood Preserving Company?

*A.* Yes, sir.

*Q.* Do you know whether that inspector has ever reported any violation?

*A.* I do not.

*Q.* Did you make any inquiry to find out?

*A.* I did.

*Q.* What was the result of your inquiry?

*A.* I could not find any complaints.

*Q.* Then, this inspector, the representative of the City and paid by the wood block company, has never made any reports of violations by that company, is that right?

*A.* I do not find any; I inquired for it; I am not sure if he did or not.

*Q.* What answer did you get when you inquired, and whom did you inquire of?

*A.* I think I inquired of Mr. Olney.

*Q.* What did Mr. Olney tell you?

*A.* I think he told me he doesn't know about any complaints being made.

*Q.* Now, Mr. Klein, you say you think you asked Mr. Olney and you think he told you; do you know it?

*A.* I am not absolutely sure of it if I did ask him about the inspector, but I know if my memory serves me right that he told me there was never any complaints made.

*Q.* Now, before Monday can you refresh your memory on that question?

*A.* Yes, I can.

*Q.* Will you please do so?

*A.* I will.

*Q.* Now, Mr. Klein, on the subject of inspection?

*A.* Yes, sir.

*Q.* First take the class which you have described as assessment. Did you make any inquiries or investigation to learn what the methods of inspecting such work employed by the Bureau are?

*A.* Yes.

*Q.* Will you first describe the method of inspection, tell us the number of inspectors employed, then tell us what criticisms you have to make of the method?

*A.* As soon as any contract work is commenced an inspector is sent there to see that the specifications are carried out, that the grades are observed, and he is supposed to be there from the time the work commences in the morning until the men go in the evening. From our experience for many years we found that the Department is sadly lacking in competent inspectors. In fact, from my own observation and from reports of my men, I arrived at the conclusion that only about half of the inspectors which are detailed on regulating, grading and paving contracts, and so forth, are competent.

*Q.* When you say competent, what do you mean?

*A.* I mean competent to protect the interests of the City.

*Q.* Do you mean that they have not sufficient technical knowledge?

*A.* Yes, sir, technical knowledge and judgment to pass upon work.

*Q.* What was there in your experience which you refer to which led you to believe this?

*A.* My men and I have seen streets filled in, embankments filled in with oversized stone, which are prohibited by the specifications.

*Q.* What result has that?

*A.* The result is that the openings for sewer trenches and so forth made afterwards, when a contractor does not expect to meet any large rock or stone, that he will generally claim a damage. Then dumping large stones in embankments generally creates voids, which afterwards will fill out, and will cause a sinkage in the surface. We have further found that the curbing, flagging, and so forth, is of inferior workmanship; that is, the inspector's attention has been called to the fact that it was not what the specifications required, but the inspector told my men in his judgment the work was all right, which shows in my estimation that the inspector is incompetent to pass upon it. We have had cases where inspectors have been frequently absent when my men were at the work without being able to give any excuse after they were visited again.

*Q.* Do you know the number of men employed in this kind of work?

*A.* No, sir. I think about forty or something like that. I could not give you a definite number, but there is about forty inspectors of regulating, grading and paving.

*Q.* Do these forty inspectors of regulating, grading and paving also have to inspect, as well as the work you have just described, the work of laying new pavements on streets?

*A.* Yes, sir.

*Q.* Do they also have to inspect the work of repaving streets?

*A.* Yes, sir.

*Q.* Then they should have, should they not, a certain amount of technical knowledge as to construction work as well as on matters of paving and repaving?

*A.* They should have, yes, sir.

*Q.* Do you know whether they have or not?

*A.* I stated before that I found about fifty per cent. to have no knowledge.

*Q.* No knowledge of what?

*A.* Of their duty.

*Q.* Are you referring now to construction work or paving and repaving?

*A.* I am referring to the entire inspection work, referring to regulating and grading as well as paving.

*Q.* Taking up the inspection of paving and repaving work, what records, if any, are the inspectors directed to keep of the work which they inspect?

*A.* They keep a note book, which contains very meagre information, such as how many men were at work and notes about the weather, that is about all.

*Q.* Are such notes sufficient to constitute a proper record of construction work?

*A.* No, sir.

*Q.* Are they sufficient to adequately safeguard the City's interests?

*A.* No, sir.

*Q.* What should such records contain?

*A.* Such records should be a complete report of all the work done. They would come in very valuable in getting up estimates of work, in order to find the actual cost of different classes of work.

*Q.* Should not these inspectors' reports on paving and repaving embrace the report of any violation that may be found of the specifications?

*A.* It should, indeed.

*Q.* Have you examined any of those inspectors' reports?

*A.* I have examined a few.

*Q.* Do you find any reports of violations?

*A.* No, I have not.

*Q.* Mr. Klein, do you know from your own personal examination of pavements laid in this Borough whether such violations do occur or not?

*A.* They do.

*Q.* Is this based on your own experience?

*A.* On my own experience.

*Q.* Is it based on your own examination of the pavements?

A. Yes.

Q. Did you have any conversation with Chief Engineer Olney as regards the competency or reliability of the inspectors employed on paving and repaving?

A. Yes, sir, on regulating and grading—you mean regulating, grading and paving?

Q. You say the same inspectors inspect paving and repaving who inspect regulating and grading, is that so?

A. Yes, sir.

Q. Did you have any conversation with Mr. Olney as regards or concerning the competency and reliability of these men as a class?

A. Yes, sir.

Q. Will you tell us what Mr. Olney told you on that subject?

A. He agreed with me that there was only about half of his inspectors competent.

Q. Mr. Olney told you only half of his inspectors on this work were competent, is that so?

A. Yes, sir.

Q. Did Mr. Olney tell you whether he had ever recommended or requested that he be given in their place men who were competent?

A. He did.

Q. What did he tell you?

A. He told me that he needed good men badly, but he could not get them.

Q. Did he say he asked for them?

A. Yes, he told me he did.

Q. Whom had he asked for them?

A. I could not tell that; either the Borough President or Mr. Scannell.

Q. He did not tell you whom he had asked?

A. No, sir.

Q. But did he tell you he could not get them?

A. He did.

Q. Mr. Klein, do the specifications provide for the test during the progress of construction work of the materials

used in paving or repaving, whether it be in the case of sheet asphalt, asphalt block or wood block?

A. Yes.

Q. Do they?

A. You mean the requirement that the samples should be delivered——

Q. Yes?

A. No, that is at the option of the engineer.

Q. Do you know whether that option is exercised by the engineer?

A. No, sir, very seldom.

Q. Now what does very seldom mean, does that mean once in the case of each contract?

A. Oh, no. I was told by Mr. Olney and his chemist both that owing to the time the chemist spends in examining samples which are submitted with the bids, that he had no time to examine any samples from the work while the work of construction is going on, which I consider one of the most valuable features of the entire chemical laboratory.

Q. Do you consider that the analysis of such samples during the progress of the work so necessary?

A. Most decidedly.

Q. Why do you consider that so necessary, Mr. Klein?

A. Because the contractor can furnish a sample which is acceptable at the time of the bid and he can furnish entirely different material on the actual work.

Q. Well now, in the case of sheet asphalt and block asphalt, you have testified, have you not, that no inspector is kept at the plant?

A. Yes, sir.

Q. And you say now that after the bid, after the sample is submitted with the bid, no analysis is made by the Bureau, is that so?

A. In extremely seldom cases only.

Q. Then what check has the Bureau got upon the contractor to determine that he is putting in a pavement which conforms to the specifications?

A. None whatsoever.

Q. Do you mean to say that it is wholly within the discretion and good faith of the contractor whether he gives the City a pavement which comes up to specifications?

A. Exactly, that is right. Our office is about the only Bureau which examines those samples where the work is going on.

Q. Mr. Klein, who has charge of the inspection of the pavements after they are laid and of the maintenance work of the Bureau?

A. The maintenance work, as well as the guaranty work, after the contract has been finished, during the period of guaranty the contractors have to keep the streets in repair without additional pay, and afterwards comes the maintenance period, which is a special contract. An engineer by the name of Goodsell under Mr. Olney has charge of that.

Q. Assistant Engineer Goodsell has charge of that work, is that it?

A. Yes, sir.

Q. How many kinds of inspection are carried on by the force under Mr. Goodsell, how many kinds of inspection?

A. Well, he has under him a chief inspector and thirty inspectors, whose business is to go around and see where repairs are required, to measure up openings, and with one word, to take care of the maintenance.

Q. Well, now, do those thirty inspectors with the chief inspector, inspect the condition of the pavements that are still under the guarantee of maintenance?

A. Yes, sir.

Q. Is it their duty to report defects which they may find from time to time in those pavements?

A. That is what the understanding is.

Q. For what purpose are they supposed to report such defects?

A. So the defects can be repaired, I suppose.

Q. Well, what kind of defects are they supposed to report?

A. All defects they find in the street due to wear and tear as well as fire burns and openings.

Q. Are they also supposed to inspect and report upon those streets which are not under guarantee of maintenance, as to their present condition of repair?

A. Well, I do not understand that question quite, Mr. Mitchel.

Q. I will put it in another way. Certain streets paved with asphalt are no longer under guarantee of maintenance is not that so, the guarantee has expired?

A. Yes, but then they have a maintenance on it.

Q. I ask you whether this force of inspectors is supposed to inspect and report upon the condition of the pavements of those streets?

A. Yes, sir.

Q. Are they supposed to report defects which they find in those streets?

A. Yes, sir.

Q. Are they also supposed to inspect and report upon the restoration of the pavement over the defects which they have reported upon?

A. Yes, sir.

Q. Are they supposed to inspect the restoration of pavements over plumbers' cuts and corporation cuts?

A. Yes, sir.

Q. Are these thirty men with their chief inspector the only ones assigned to this work in the Borough of Manhattan?

A. Yes, sir—well, I understand the inspectors of regulating, grading and paving, if there is no work going on, that they are also used for the purpose of inspecting maintenance work.

Q. Does that happen very often?

A. Well, it happens whenever the work is getting slack.

Q. Does it often happen that the work is slack so they may change over to the other class of work?

A. How often it happens, I cannot tell you, but that is what I understand from Mr. Olney.



*Q.* Are these thirty men, with their chief inspector, together with such of the other force of fifty as may be from time to time assigned, the only ones who are provided to do this work in the Bureau of Maintenance?

*A.* Yes, sir.

*Q.* Are they supposed to cover all the pavements of the Borough in the case of that work?

*A.* Yes, sir.

*Q.* Have you any criticism to make as to the performance of this work by those inspectors?

*A.* Well, I would say I do not consider the force large enough for proper inspection.

*Q.* How large a force do you consider would be necessary to report upon all the streets of this Borough in an efficient manner?

*A.* Well, I would divide the City up in districts, like the Street Cleaning Department, and put one man in charge of that district, whose duty it was to make regular trips through the streets in his district and see if any repairs are required and to report at once to headquarters.

*Q.* How many men do you think would be necessary for this work in the entire Borough?

*A.* I could not answer that question without some consideration.

*Q.* Well, can't you give us a rough estimate of the number of men you consider necessary? You say you think thirty are insufficient?

*A.* Oh, yes. I think they ought to double that at least.

*Q.* You think there ought to be at least sixty men assigned to this work?

*A.* Yes, sir.

*Q.* Have you examined the reports made by these maintenance inspectors as to those streets under guarantee of maintenance?

*A.* No, sir.

*Q.* You have not examined those reports?

*A.* No, sir.

*Q.* Do you know whether any such reports are made?

A. Yes, I think they are made, because I know that the Chief Engineer sends the orders to the various companies to repair which contain in detail the location and extent of the holes in the pavements.

Q. I am speaking of streets under guarantee of maintenance. Does what you say apply to those?

A. Yes.

Q. Can you inform yourself on this question before Monday?

A. Yes.

Q. Will you tell us what factor prompt notification of defects in asphalt pavements forms in the problem of keeping such pavements in a state of repair?

A. That would greatly increase the lasting qualities of a pavement.

Q. Is it possible to keep an asphalt pavement in a state of good repair without such prompt reports?

A. No, sir.

Q. Why not?

A. Because if any hole or rut has formed, through the continuous traffic on it it will rapidly increase in size.

Q. Well, what would be the effect of a prompt report?

A. A prompt report alone would not settle that, prompt attention to the actual repair would.

Q. Do you mean a repair made immediately upon the receipt of the report?

A. Yes, sir.

Q. Is it possible for the Department to see that such repairs are made except upon the basis of reports made by inspectors?

A. I should say, according to my information, that it is the only means of information the Bureau of Highways has, through the reports of their inspectors. My suggestion has been and would be to have the Street Cleaning Department in co-operation with the Bureau of Highways, also the Police Department.

Q. There is no provision in the law for that at present, is there?

A. I do not know about that, I do not think so, but I am informed by Mr. Olney that the President sends once a year just before election time around to the Commissioner of Police and requests that no bonfires shall be permitted.

Q. Well, now, Mr. Klein, the Bureau of Highways is responsible for this maintenance work, is it not?

A. They are.

Q. Is there any way for the Bureau of Highways to become cognizant of a defect in the pavement except through the reports of its inspectors?

A. It is. I understand they are getting notification from property owners.

Q. Well, that is mere chance, is it not?

A. Yes, it is.

Q. Is there any system employed by the Bureau for getting cognizance of those defects in the pavement except through the reports of their inspectors?

A. I think that is the only means by which they are getting information on that subject.

Q. Well now, in order that repairs may be promptly made, is it or isn't it necessary that reports should be made promptly by inspectors?

A. It is necessary and absolutely essential.

Q. Mr. Klein, do you know how often these inspectors are, under the system employed by the Bureau, supposed to inspect a given plumber's cut before the pavement has been finally approved as restored?

A. They go there twice, I think.

Q. What for?

A. First to measure up the opening made by a plumber and then they go there again to measure, after the pavement has been restored, the extent of the repair.

Q. Aren't they supposed to report as soon as the opening is ready for repavement?

A. They are supposed to do that.

Q. May not that require more than one visit?

A. Yes.

*Q.* They are also supposed to measure up that opening, are they not?

*A.* Yes, sir.

*Q.* Are they not supposed to find out whether the asphalt company has obeyed the order issued by the Bureau to repave?

*A.* They are, I guess.

*Q.* Are they not also supposed to inspect the work of repavement?

*A.* Yes, sir.

*Q.* Well, may not all this require several visits?

*A.* It does.

*Q.* Does the same apply to corporation cuts and other openings in the pavements made by individuals or corporations?

*A.* Well, the corporation, they generally have a corporation inspector who looks after that.

*Q.* Leaving out the corporations, does not that apply to individuals who open the pavements for various things?

*A.* It does.

*Q.* Have you any idea how many openings are made in the pavements of this Borough per year by plumbers and other individuals?

*A.* No, sir.

*Q.* Aren't these inspectors also supposed to attend to and inspect the work of restoration of pavement over wear and tear holes?

*A.* Yes, sir.

*Q.* They are first expected to report those holes, are they not?

*A.* Yes, sir.

*Q.* They are then expected to inspect the work of restoration?

*A.* They may assign another man for it, but there ought to be an inspector.

*Q.* They should assign an inspector?

*A.* Yes.

*Q.* They are also expected to report fire burns, are they they not?

*A.* Yes.

*Q.* Are they also expected to inspect the work of restoring pavement over fire burns?

*A.* Yes, sir.

*Q.* Have you any idea what number of fire burns occur in pavements of this Borough in any one year?

*A.* Yes, sir; I have a letter in my possession which Mr. Olney wrote to me by request, stating that during 1906 the area of the pavement injured from bonfires amounted to over 64,000 square yards.

*Q.* Well, now, Mr. Klein, taking that as one item only, do you still think that sixty inspectors would be sufficient to cover and properly report upon all the pavements of this Borough?

*A.* Well, you must understand me, those inspectors would not have anything to do with inspecting the replacing of that pavement, these men would be simply going around all the time hunting up repairs.

*Q.* You mean the sixty you referred to?

*A.* Yes.

*Q.* Well, the thirty who are at present used not only search for defects, but also inspect the work of restoration, don't they?

*A.* Yes, sir.

*Q.* Now, how many men do you think would be necessary to replace those thirty, not only to inspect present condition of pavements but also to inspect the work of restoration?

*A.* Outside of the sixty I mentioned?

*Q.* Altogether?

*A.* Oh, about one hundred and twenty.

*Q.* One hundred and twenty?

*A.* Yes, sir.

*Q.* Well then, thirty men are at present expected to do the work which you consider it would take one hundred and twenty men to do?

A. To do it properly, yes, sir.

Q. Is it possible for thirty men to properly inspect and do the work which these thirty men are supposed to do?

A. No, sir, not in my estimation.

Adjourned to Monday, May 6th, 1907, at 10:30 A. M.

NEW YORK, May 6th, 1907.

Met pursuant to adjournment.

Present—Commissioners HERTLE and MITCHEL, and MR. BRUERE.

Continuation of the examination of OTTO H. KLEIN:

*Examined* by Commissioner MITCHEL:

Q. Mr. Klein, did you make a further examination to find whether any reports have ever been made of violations by the inspector stationed at the United States Wood Preserving Company's plant?

A. I have.

Q. Did you find any such reports of violations?

A. I was told by Mr. Olney that no such reports have been made at any time.

Q. You were told what?

A. I was told that the inspector has made no reports at all.

Q. You were told this by Mr. Olney, the Chief Engineer?

A. Yes, sir.

Q. Did you make an examination since the last hearing to learn what method is adopted by the inspectors in reporting wear and tear holes?

A. I did.

Q. What did you find?

A. I was referred by Mr. Olney to Mr. Goodsell, who has charge of the maintenance, and he told me that out-

side the regular inspectors who are supervising the repairs on maintenance of streets there are twenty-five men detailed from the granite repair gangs, who are directly under the Superintendent of Highways. Those twenty-five men are supposed to go around to the various streets and make reports on repairs needed, and they make out cards which are kept on file.

*Q.* How long have those twenty-five men been assigned to this work?

*A.* I could not tell you that, I was not told.

*Q.* Did you find out whether they had been appointed subsequent to the institution of this investigation?

*A.* I could not tell you that.

*Q.* Will you find that out before the next hearing, Mr. Klein?

*A.* I will. There are also many reports of repairs needed over the telephone to Mr. Goodsell.

*Q.* By whom?

*A.* By those men.

*Q.* What is done with those reports?

*A.* Those reports, I am told, are entered into the complaint book and notices sent out to the asphalt companies to repair those defects.

*Q.* What evidence is there of the receipt of those telephone messages?

*A.* He has some loose slips on his desk, which he told me are entered upon the complaint book.

*Q.* Did you examine the complaint book to see if they were there?

*A.* No, sir. I did not have time and I did not have a chance to do that.

*Q.* What is the regular employment of these twenty-five men who have been assigned to reporting on the asphalt pavements?

*A.* I am told they consist of a foreman and laborers picked from the various repair gangs.

*Q.* What kind of repair gangs?

*A.* The regular repair gangs employed under the superintendent of highways.

*Q.* What do they repair ordinarily?

*A.* Repair granite pavements and macadam roads.

*Q.* Then, you mean that for the time being these men are withdrawn from their regular work on granite pavements and assigned to asphalt inspection, is that right?

*A.* That is what I understand.

*Q.* Were those men on the payrolls of the Superintendent of Highways on granite block paving——

*A.* I suppose they are, I did not see the pay rolls.

*Q.* Now, do they make reports?

*A.* I saw quite an amount of cards.

*Q.* Of what kind?

*A.* Regular blanks. I brought one specimen along, one blank along.

*Q.* Is this a form of the card?

*A.* That is a form of the card.

*Q.* That is used by the——

*A.* That is used by those twenty-five special inspectors, you may call them.

*Q.* Do you know when this card was printed by the Bureau of Highways?

*A.* I do not.

*Q.* Do you know what this printed number on the bottom corner of the card means, "28 c-5c07"?

*A.* 07 means the year, the last figures.

*Q.* Do you know whether this card represents an innovation by the Bureau of Highways this year or whether it is an old custom?

*A.* It appears to be an innovation, because it bears that date.

*Q.* Did you ever see one of these cards before Saturday?

*A.* No, sir.

*Q.* Did you ever hear of one before Saturday?

*A.* No, sir.

The card produced by the witness was admitted in evidence and marked Exhibit No. 168, May 6th, 1907 C. B.



*Q.* Where did you procure that card?

*A.* This card was given to me by request of Mr. Goodsell.

*Q.* Is there any other record beyond those cards of reports by inspectors of the wear and tear holes in asphalt pavements?

*A.* There are reports made by the regular inspectors of regulating, grading and paving. Mr. Goodsell looked for an instance, I asked him to, and he found one of a report made by Inspector G. R. Skiffington, on November 12th, 1906, of an inspection of East 106th Street from First Avenue to East River. This inspection was made for the purpose of ascertaining the condition of the pavement at that time, because the expiration of the maintenance contract was close by, and they generally send an inspector out to ascertain the condition and make notes so word can be sent to the asphalt company to repair the same before the maintenance contract—the guaranty maintenance I am talking about—expires. This report was made with that view.

*Q.* How was it made, verbally or in writing?

*A.* It is made in writing.

*Q.* On what kind of a printed form?

*A.* It is no printed form, it is a regular note book used by the inspectors of regulating, grading and paving.

*Q.* What do you mean by men employed on regulating, grading and paving?

*A.* I mean the regular inspectors who are employed under Mr. Olney on the maintenance work.

*Q.* You do not mean the maintenance work, do you?

*A.* I do, to do the repairs.

*Q.* I thought you said before the inspectors employed on regulating, grading and paving were on original work or repaving work, and that the thirty inspectors under Mr. Goodsell were employed in inspecting maintenance work.

*A.* That is right, those are the inspectors I have reference to.

*Q.* Do you mean that this note book is made by one of the inspectors of regulating, grading and paving——

*A.* That is their title, Mr. Mitchel, they have the same title understand, both on the new work and on the old work?

*Q.* There is one group of forty men employed on regulating, grading and paving and repaving?

*A.* That is right, that is paving and repaving.

*Q.* Are the thirty men employed under Mr. Goodsell under the same title?

*A.* I understand they have the same title, but they are only assigned to him.

*Q.* You are speaking of one of those thirty?

*A.* I am speaking of one of those thirty, and those cards have reference to the special inspectors who come from the other branch of the bureau, that is, from the Superintendent of Highways.

*Q.* You found that report on 106th Street in that book?

*A.* Yes.

*Q.* Did you follow it up to see whether anything had been done on 106th Street in accordance with the report?

*A.* They could not find any record of it, they looked in the complaint book.

*Q.* They could not find any record of any action having been taken by the Bureau on that report?

*A.* No.

*Q.* What does the report show, Mr. Klein?

*A.* The report shows ten defects called depression, and one fire burn.

*Q.* Do you know what is meant by depression?

*A.* A depression may be a sinking of the pavement without breakage or it may be that the asphalt is gone over the depression, it is very indefinite.

*Q.* If it is either a sinking or breakage greater than a quarter of an inch, does it cover that?

*A.* No, (reading from book) depth one inch, one inch, one inch, fire burn, it don't say the depth there; depth three-quarters of an inch, depth one inch and a half, depth

one inch, one inch, depth six inches—that is called depression, too.

*Q.* That is all that inspector found in 106th Street in November, 1906?

*A.* Yes, from First Avenue to East River.

*Q.* Mr. Klein, do you find any records of inspections in those note books made at any time except immediately before the expiration of the contract of guaranty?

*A.* Well, that is the only note book Mr. Goodsell gave me as representative of the others. I do not know anything about the references made in the complaint or repair books, but that was the only instance Mr. Goodsell gave me in that book which I referred to of an inspection and reports on repairs needed on the street.

*Q.* That was the only case in that note book where a report was made that a repair was needed in the street?

*A.* That is what Mr. Goodsell told me, yes.

*Q.* Did you find any case where a report was made of the condition of a street except just before the expiration of a guaranty period?

*A.* I did not go through that.

*Q.* Didn't go through any other book?

*A.* He went through another one, but there was no record in there of a case of that kind, and I asked him for it, asked him to produce me some records this morning, which he promised me then, but this morning he told me he didn't have any.

*Q.* He couldn't find any records of such reports?

*A.* Could not find any and did not have time. He said he had them, but didn't have time to look for them.

*Q.* At all events, he did not produce them?

*A.* He did not, no, sir.

*Q.* Isn't that inspection just before the expiration of the guaranty period necessary in order to pass upon the final payment on the contract?

*A.* It is.

*Q.* If that inspection were not made and a certificate based upon it given, the contractor could not get his final payment, could he?

A. He could get his final payment if the various officials passed it along.

Q. Yes, but in order to enable the various officials to pass it, it is necessary, is it not, for them to protect themselves by having an inspection made before the guaranty period expires?

A. Yes, sir.

Q. Mr. Klein, I see that the press has credited you with saying that you consider that the best foundation for asphalt pavement is stone block? Did you say that?

A. I did not.

Q. What kind of a foundation for asphalt pavement do you consider that stone block really makes?

A. I think it makes a very poor foundation for an asphalt pavement. I advocated all the time concrete in place of old stone blocks.

Q. Well, how do you think it compares with the other kinds of foundation used, is it good, worse or better than the other?

A. What, the concrete?

Q. Is stone block as a foundation for asphalt pavement as good or worse or better than the other forms of foundation used?

A. It is worse than any other foundation I know of.

Q. Mr. Klein, do you know what the rules of the Bureau of Highways are in regard to the restoration of pavement over openings made by corporations?

A. The corporation applies for a permit to the Chief Engineer, who issues the permit, and thereupon an inspector is appointed—oh, yes, when a permit is issued, the corporation has to give a bond for the proper restoration of the pavement after the completion of their work, then the work is done under the inspection of an inspector, who is paid by the corporation, and who is called a corporation inspector.

Q. The corporation issues the order for the restoration of the pavement to the asphalt company?

A. They do, and pay the asphalt company.

*Q.* Now, the inspector who you say is appointed, he is appointed by whom?

*A.* He is appointed by the Borough President.

*Q.* For what purpose is he appointed?

*A.* For the purpose of seeing that the City's interests are taken care of.

*Q.* That is to say, his duty is to inspect the character of the work in restoring pavements, is that it?

*A.* Yes, sir, restoring pavements and refilling trenches.

*Q.* Is he under civil service rules at all?

*A.* He is not.

*Q.* Is he on the pay-roll of the Bureau of Highways?

*A.* No, sir.

*Q.* Who pays his salary?

*A.* The corporation he is inspecting for.

*Q.* Then, this situation is similar to that which you described of the United States Wood Preserving Company, is it?

*A.* Yes, sir.

*Q.* The inspector is supposed to safe-guard the interests of the City, is that right?

*A.* He is.

*Q.* And he is paid by the contractor, is that right?

*A.* He is, by the corporation.

*Q.* It is the operations of that corporation which he is supposed to watch, is that right?

*A.* It is.

*Q.* If violations occur, who is it that is guilty of the violations?

*A.* If violations occur, I should say the inspector is responsible.

*Q.* No, I say, who is guilty, who is the person who is guilty of the violation?

*A.* The corporation.

*Q.* Then, the inspector is paid by the person whose violation he is supposed to report, is that right?

*A.* That is right.

*Q.* Does this obtain in the case of all corporation openings?

*A.* It does.

*Q.* Do you know what rates those inspectors receive from the corporations?

*A.* They receive rates by the day and they receive a monthly salary, some of them, depending upon the nature of the work. Work of short duration, they receive \$4 a day. For work of greater extent, they receive from \$100 to \$200 a month.

*Q.* Do these inspectors ever report violations?

*A.* I have no recollection of ever seeing any.

*Q.* Did you make an examination to find out?

*A.* Yes.

*Q.* Well, what was the result of it?

*A.* I could not find any.

*Q.* Are any of these inspectors continuously employed by corporations?

*A.* I was told that in one instance an inspector——

*Q.* By whom were you told?

*A.* By Mr. Olney.

*Q.* What were you told?

*A.* That one inspector was employed by the New York Central Railroad Company continually for the last three years at a salary of \$200 a month.

*Q.* Has that company been opening the pavement continuously for the last three years?

*A.* I think they have, yes, sir.

*Q.* Do you know that they have, Mr. Klein?

*A.* I do not know, Mr. Mitchel, if they have continuous work in opening pavements, but I am told the inspector is employed continuously.

*Q.* But you do not know whether the corporation has had work upon which to employ him continuously?

*A.* I could not tell you that, no, sir.

*Q.* That is merely an inference then, is it?

*A.* An inference.

*Q.* What has been the method of the corporations open-

ing pavements as to the amount of pavement opened at a given time?

A. You mean the extent?

Q. Yes, as to the extent of the openings?

A. Well, Mr. Olney tells me that he permits them only to open a block at a time.

Q. Has that been so, heretofore?

A. I have been out on the work so very little, Mr. Mitchel, that I am unable to say anything about that.

Q. You know of no cases where the street has been opened for several blocks continuously at one time by any corporation?

A. I do, I know a case on Third Avenue, where I was asked to make an inspection, where nearly all of Third Avenue was opened from here to Harlem at one time.

Q. From where to Harlem?

A. From down here at the Post Office.

Q. When was that?

A. I am unable to tell you the year; when the power was changed from cable to trolley.

Q. Do you know any cases more lately than that where a pavement was opened for any considerable number of blocks continuously?

A. Not from my own personal observation, because I am very seldom out on the work.

Q. When sewer mains or water mains are to be laid, who pays for the restoration of the pavement over the trenches?

A. The City.

Q. Are you sure about that?

A. That is what I understand.

Q. Isn't it the contractor who lays the main who is obligated to restore the pavement?

A. That depends on his contract. If the relaying and restoration of the pavement is included in his contract, he would have to pay for it, if not the City would have to pay for it.

Q. Isn't it always included in his contract?

A. I don't know about that.

Q. Now, Mr. Klein, didn't you state on page 47 of your report that the contractor laying the sewer or the water main was always responsible for the restoration of the pavement?

A. Well, then I misunderstood your question, Mr. Mitchel. When you asked about sewer and water openings or openings for sewer and water trenches, I understood you to mean that those are trenches which are opened by the Department itself, not on a contract.

Q. I mean, where a sewer main or water main is to be constructed under contract, who is responsible for the restoration of the pavement over those trenches?

A. The contractor.

Q. Now, who supervises the work of relaying the pavement over the trenches?

A. The Department of Highways.

Q. Are inspectors appointed for that?

A. Yes, sir.

Q. Who are the inspectors?

A. I do not know if they are corporation inspectors or regular employees of the Department.

Q. Well, can you say anything as to the promptness with which reports are made by them?

A. By the inspectors?

Q. Yes.

A. No, sir, I haven't seen any reports.

Q. Mr. Klein, the condition of the pavements has been ascribed in part to the laying of high pressure water mains in this City?

A. Yes, sir.

Q. Within what district have those mains been laid?

A. I understand they are laid in the downtown districts only, I understand as far up as Twenty-second Street.

Q. North to Twenty-second Street, and south to where?

A. I do not know.

Q. How far south?



A. I do not know, I have not examined those streets.

Q. You do not know the district within which the high pressure mains have been laid?

A. No, sir.

Q. I think you better examine all these matters, Mr. Klein, and be prepared to testify fully on Wednesday morning. Does the Bureau of Highways have subsurface maps or maps of the subsurface systems of the City?

A. No, sir, they do not.

Q. Would such maps in any way lessen the necessity for opening pavements?

A. They would.

Q. In what way?

A. Then the location of subsurface construction could be accurately located before the pavement is opened.

Q. Can you tell whether or not it is now necessary to open the pavement by guess work in some cases?

A. I think it is.

Q. Well, do you know whether it is or not?

A. It must be, because they have no record.

Q. In what cases would that occur, what kind of cases?

A. It would occur in the opening for water pipes, gas pipes, and electric conduits.

Q. Mr. Klein, to go back to the wood block pavements, do you know whether any request was preferred from any source to the Borough President for the laying of wood block pavements?

A. Yes, sir.

Q. From what source did such request come?

A. I understand from the truck owners association.

Q. In how many instances was the request made by that association?

A. In most or all instances, I understand.

Q. Most or all instances where wood block pavement is laid?

A. Where wood block pavement is laid.

Q. Do you know who forms the Truck Owners' Association?

A. No, sir.

Commissioner MITCHEL: That is all, Mr. Klein.

JOHN R. MACNEILLE, recalled for further examination, testified as follows:

*Examined by* Commissioner MITCHEL:

Q. Now, Mr. MacNeille, since the last hearing at which you testified, have you completed a tabulation of the details of the contract concerning which you testified before, as to the voucher numbers and the names of the inspectors and other persons who passed upon or certified to them?

A. I had at the time of my last testimony such a tabulation, but for reasons of your own, Mr. Commissioner, they were not asked for at that time.

Q. Will you give us that tabulation now, Mr. MacNeille?

A. 1905, bid sheet 113, United States Wood Preserving Company contractor, inspector Thomas J. Burke, paving with wood block pavement on concrete East Broadway from Chatham Square to Grand Street. Reference is made to W. G. Fitzgerald's letter, dated 5-26-05, to G. R. Olney, Chief Engineer. Estimated quantity 18,550 square yards pavement, wood block, at \$2.60. Quantity returned and allowed 19,378.8. Quantity estimated 18,540 square yards of pavement, old stone, to be removed. Sale price from City to contractor 20 cents per square yard. Amount returned and allowed 18,036.8 yards. Reference is made to letter dated 11/15/05, signed J. T. McPeak, to George R. Olney, Chief Engineer. Reference is made to voucher 2,664, dated 11/13/05, and requisition 3,688. In the last mentioned voucher there is no explanation of the excess of 839 square yards at \$2.60, amounting to \$2,181.40, or of the difference between pavement laid and removed, namely, 1,342 square yards, the pavement removed and paid for by the contractor to

the City being very much less than the new pavement laid, and paid for by the City to the contractor.

1905, bid sheet 109. Reference is made to voucher 3,085, requisition 3,766, voucher dated 11/18/05, signed G. R. Olney and G. F. Scannell. Reference is made to letter dated December 14, 1905, to G. R. Olney, signed Gustavo J. Steinacher. Excess is due to "the fact that more sand than was expected was found on top of the old concrete." And another quotation from the letter is as follows: "The excess of the curb in the final over the preliminary estimate is due to an error in the latter." The excess is practically to 2,025.2 cubic yards of concrete allowed at a price of \$6.80 per cubic yard in the returned figures, when the estimate and bid amount called for only 1,240 cubic yards. Reference is made to bid sheet No. 109, signed J. F. Ahearn.

1905, contract ledger and bid sheet 111. Reference is made to voucher 1,622, requisition 4,279, signed G. R. Olney and G. F. Scannell, dated 3/31/04. Reference is made to letter to G. R. Olney signed J. G. Horgan, dated 1/9/06, from which is quoted "Excess partially due to an error in the preliminary estimate and excess depth of sand cushion found on old foundation." Excess is practically due to 2,492.6 cubic yards of concrete at a price of \$6.50 per cubic yard being allowed, when the estimate and bid amount called for only 1,470 cubic yards. Reference is made to bid sheet 111, signed J. F. Ahearn.

1905, bid sheet 114. Reference is made to voucher 2,848, requisition 4,643, voucher signed G. R. Olney and G. F. Scannell, and dated 11/20/06. Excess is practically due to 2,659.4 square yards of pavement at a price of \$2.70 being allowed, while the estimated and bid amount was 2,540 square yards. Reference is made to bid sheet 114, signed John F. Ahearn.

1905, bid sheet 194. Reference is made to voucher 1,817, requisition 4,352, signed George R. Olney, Chief

Engineer, and G. F. Scannell, Superintendent of Highways, and dated 7/30/06. Reference is made to letter dated 7/30/06, to G. R. Olney, signed J. P. McPeak, and approved by G. R. Olney, Chief Engineer. Excess is explained as due to "excessive cushion of sand found under old pavement." Reference is made to bid sheet 194, signed by John F. Ahearn.

1905, bid sheet 197. Reference is made to voucher 1,589, requisition 4,271, voucher signed G. R. Olney, Chief Engineer, and G. F. Scannell, Superintendent of Highways, and dated 7/7/06. Reference is made to letter dated 7/6/06, to G. R. Olney, signed J. G. Horgan, and approved by G. R. Olney, Chief Engineer, from which is quoted "Excess in concrete due to excessive cushion of sand found on the old concrete foundation." In this case the excess was due to 636.3 cubic yards of concrete at \$6 per cubic yard being allowed, while the bid amount was only 337, that is, the allowed amount returned was nearly double the bid amount. Reference is made to bid sheet No. 197, signed John F. Ahearn.

1905, bid sheet 200. Reference is made to voucher 1,675, requisition 4,313, voucher dated 7/13/06, signed G. R. Olney, Chief Engineer, and George F. Scannell, Superintendent of Highways. Reference is made to letter dated 7/12/06, to G. R. Olney and signed J. P. McPeak, approved by G. R. Olney, Chief Engineer, from which is quoted as the reason for the excess, "Excess in the final quantity of pavement due to the extension of work at Front Street." "Excess in concrete due to excessive cushion of sand found under old pavement and extension." Please cancel on the record the first quotation, that should not be quoted. Reference is made to bid sheet No. 200, signed John F. Ahearn.

Folio 202, ledger 1905, the folio being also the bid sheet number. Reference is made to voucher 2,048, requisition 4 401. Voucher is dated 8/24 06, and is signed G. R.

Olney and George F. Scannell. Reference is made to letter of 8/24/06, to G. R. Olney, Chief Engineer, signed J. P. McPeak, and approved by G. R. Olney, from which is quoted "Excess in final quantity of concrete is due to excessive cushion of sand found under the old granite pavement." Reference is made to bid sheet 202, signed John F. Ahearn.

In the above I have omitted some contracts referred to in previous testimony, and would further state that it is impracticable to tell what excess there has been so far in certain uncompleted contracts.

Reference is made to 1905 bid sheet 192. Refer to voucher No. 2,991, requisition 3,880, voucher dated 12/11/05. Refer to letter dated 12/2/05, to G. R. Olney from C. A. Crane, explaining an excess of 641 lineal feet of new curb set at \$1.25 per lineal foot. The bid amount was 20 feet, amount allowed 661 feet, about thirty-three times as much as the bid amount was allowed. On corrected voucher 217.7 cubic yards of concrete at \$4.40 were allowed. The original bid amount was 175 cubic yards; the amount allowed in the first voucher was 176.1 cubic yards, practically the same as bid amount. The increase of the second voucher over the first was not explained. The corrected voucher was signed G. R. Olney and G. F. Scannell, and the date of signing is not given on the voucher.

*Q.* Is that all, Mr. MacNeille?

*A.* It is, yes, sir, I should like to add, Mr. Commissioner, that I will as soon as possible read over my testimony and trust there will be no further corrections.

MARVYN SCUDDER, recalled for further examination, testified as follows:

*Examined* by Commissioner MITCHEL:

*Q.* Mr. Scudder, did you make a special study of the contract for the paving with wood block of Dey Street from Greenwich to West Street?

A. I did.

Q. To whom was that contract let?

A. United States Wood Preserving.

Q. You mean the United States Wood Preserving Company?

A. Yes, sir.

Q. What was the folio and bid sheet number of that contract?

A. 197.

Q. I read you from page 751 of the record of Mr. MacNeille's testimony:

"A. 1905, bid sheet 197. Names of contractors bidding, Frankling Contracting Company, Republic Construction Company, United States Wood Preserving Company.

"Bid price per square yard old stone pavement removed, in order, 15 cents, 13 cents, 17 cents.

"Price per cubic yard of concrete, in order, \$6.25, \$6.20, \$6.

"Bid prices per lineal foot new curb, in order, 95 cents, 95 cents, 98 cents.

"Price per lineal foot old curb, in order, 35 cents, 34 cents, 36 cents.

"Bid prices per noiseless water manhole cover, in order, \$15, \$15, \$15.

"Prices per noiseless sewer manhole cover, in order, \$15, \$15, \$15.

"Net amount bid by each contractor, in order, \$9,485.75, \$9,516.20, \$9,687.20.

"The last named amount was the accepted bid. The contract was awarded to the United States Wood Preserving Company, to which Company the Borough President allowed and paid a net amount of \$10,817.74.

“The pavement in question was that laid on Dey Street from Greenwich Street to West Street.”

Is that the contract to which you have just referred and which you examined?

A. Yes.

Q. Did you make an examination of that contract for the purpose of computing the thickness of the concrete foundation laid upon the basis of square yardage of pavement laid?

A. I did.

Q. What did you find to be the amount of concrete estimated by the engineers to be necessary for the foundation in this case?

A. I haven't that figure here.

Q. What did you find the amount of concrete allowed?

A. In the returned amount it was 636.3 cubic yards of concrete.

Q. What did you find to be the excess cost allowed for concrete in the case of this contract?

A. I cannot tell you that without referring to the figures.

Q. Did you make a computation for that?

A. I did make a computation for that.

Q. Haven't you those figures here?

A. As I remember, Mr. MacNeille testified to that.

Q. I read you from page 794 of the record, Mr. MacNeille's testimony:

“Folio 197, estimate”—the numbers refer to cubic yards—“337, allowed 636.3, excess allowed 299.3, per cent. excess 88.8, cost of excess \$1,795.80.”

Are these the figures in the case of the contract that you examined?

A. They are correct, to the best of my knowledge and belief.

Q. Did you find the excess cubic yards allowed to be 299.3?

A. Yes, if that is the difference between 636.3 and 337.

Q. Did you make a computation to determine the thickness of the concrete base, or to change my question, what the thickness of the concrete base must have been, the amount of concrete named in the returned amount having been used?

A. I did.

Q. Is it not true that a certain proportion of the concrete base is laid under the curb and behind the curb?

A. That is true.

Q. Did you deduct that amount from the total cubic yardage of concrete in making your computation?

A. I did.

Q. Well, will you tell us briefly how you made your computation?

A. There are three items to be taken into consideration in the concrete under and on each side of the curb, namely, the front, the foundation and the back.

Q. Did you compute all three?

A. I computed all three from the specifications.

Q. In what terms, cubic yards or what?

A. I computed that in cubic feet and later reduced the 636.3 cubic yards of concrete to cubic feet.

Q. Did you deduct from the total the cubic contents of those areas that you have just described?

A. I did.

Q. Before, under and behind the curb?

A. I did.

Q. What did you find the total cubic feet of concrete laid under the pavement surface to be after deducting those amounts?

A. 15,994.2 cubic feet of concrete used under pavement.

Q. What did you find the total square footage or square yardage of the pavement laid to be?

A. The total square footage 21,342.6.



*Q.* Then, you reduced the square yardage in the case of the pavement to square footage, is that right?

*A.* I did.

*Q.* Now, on the basis of those figures did you compute the thickness necessary for the concrete base, had that amount of concrete been used?

*A.* I did.

*Q.* What did you find the thickness of the concrete would be?

*A.* In inches, 8.988, or practically 9 inches.

*Q.* Did you examine the specifications and note the thickness of the concrete base called for in the specifications?

*A.* I did.

*Q.* What was it?

*A.*  $4\frac{1}{2}$  inches. I would prefer to read that from the specifications, because there is a half inch there that is covering. Really the concrete is only 4 inches, according to the specifications.

*Q.* Have you the original specifications of that contract here or only a copy?

*A.* I have only a copy of the contract.

Commissioner MITCHEL: Then I do not think it is competent to read from that. The witness is excused.

WALTER B. GORMLY, called as a witness, being duly sworn, testified as follows:

*Examined by Commissioner MITCHEL:*

*Q.* Mr. Gormly, what is your business?

*A.* Civil Engineer.

*Q.* Where are you at present employed, Mr. Gormly?

*A.* In the office of the Commissioners of Accounts.

*Q.* What is your grade in the office?

*A.* I am graded as examining engineer.

*Q.* How long have you been an engineer, Mr. Gormly?

*A.* I received my degree in 1895.

*Q.* Where?

*A.* At the Rensselaer Polytechnic Institute, Troy, New York.

*Q.* Since then have you been continuously engaged in the practice of your profession?

*A.* I have, yes, sir.

*Q.* Did you, by direction make an examination of the pavement of Dey Street between Greenwich and West Streets lately?

*A.* Yes, sir, I did.

*Q.* When did you make the examination?

*A.* On Saturday morning, May 4th.

*Q.* Well, now, what physical condition did you find there in the street?

*A.* The pavement was all laid, but a trench has been excavated between Greenwich and West Street.

*Q.* Is the trench the entire length of the street between Greenwich and West?

*A.* It is not all open at present, part of it has been filled.

*Q.* How much was open when you examined it?

*A.* I should say about 125 feet.

*Q.* Now, did you by direction make an examination as to the thickness of the new concrete base for the wood block pavement laid there at the time that the wood block pavement was laid?

*A.* Yes, sir.

*Q.* In how many places did you make an examination to ascertain that?

*A.* I made an examination for the full length of the open trench, and made at least 25 to 30 measurements in all of the thickness of the concrete.

*Q.* What did you find the thickness of that new concrete found under the wood block pavement to be?

*A.* As near as I could judge or distinguish between the new concrete and the old concrete, the new concrete I should say was from  $5\frac{1}{2}$  to  $6\frac{1}{2}$  inches thick.

Q. That is, a minimum of  $5\frac{1}{2}$  and a maximum of  $6\frac{1}{2}$  inches, is that right?

A. That is what I should say.

Q. You say this is based on your examination at about 25 points?

A. Yes, sir, at least that. I might say that I was unable to distinguish at several places between the old and the new concrete, however.

Q. The old concrete existed there at the time the wood block pavement was laid, did it not?

A. I believe it did.

Q. And the new concrete was laid upon it at that time, is that right?

A. Yes, sir.

Q. And your measurements showed a thickness of  $5\frac{1}{2}$  to  $6\frac{1}{2}$  inches?

A.  $5\frac{1}{2}$  to  $6\frac{1}{2}$  inches.

Commissioner MITCHEL: That is all.

Commissioner MITCHEL: While we are waiting for the next witness, I shall read into the record extracts from the official copy of the minutes of the Board of Estimate & Apportionment, entitled "Proceedings of the Board of Estimate & Apportionment of the City of New York, 1904," relating to the adoption of the new form of Clause 61 of the present specifications for asphalt pavements, the procedure in regard to which was questioned at one of the hearings of this Commission by the counsel for the President of the Borough, Mr. LITTLETON.

The minutes of the meeting of May 20th, 1904, are in part as follows:

"The following resolution was offered:

Resolved, That the request of the President of the Borough of Manhattan that section 61 of the specifications for asphalt paving in the Borough of Manhattan,

defining refined asphalt, which section corresponds with article 21, section B of the specifications for asphalt paving, adopted by the Board of Estimate and Apportionment April 28th, 1902, and printed on pages 681-2 of the Minutes of the Board of Estimate and Apportionment of that date, be amended so as to read as follows:

61. The refined asphalt shall be obtained by refining crude natural asphalt until the product is homogeneous and free from water. Asphalt obtained from the distillation of asphaltic oils will not be accepted. It must not be affected by the action of water; must contain not less than ninety (90) per cent. of bitumen soluble in carbon-bisulphide, and of the bitumen thus soluble in carbon-bisulphide not less than sixty-eight (68) per cent. shall be soluble in boiling Pennsylvania petroleum naphtha (boiling point from 40 to 60 centigrade); or if it does not contain sixty-eight (68) per cent. thus soluble in the naphtha, but is satisfactory in other respects, the deficiency may be supplied by fluxing the refined asphalt with such a percentage of a viscous liquid asphalt, satisfactory to the Engineer, as will bring it up to the required standard. It must comply in all respects with the tests enumerated in a, b, c, d and e of paragraph 62;—be and the same is hereby approved.

And the Presidents of the four other Boroughs of the City of New York are hereby requested and instructed to amend and change their specifications to accord with the above technical requirements.

Which was adopted by the following vote"—giving the vote.

The extract just read appears on pages 756 and 757 of the Record of the Minutes of the Board.

The record of the meeting of May 27, 1904, appearing pages 882, 883, 884 and 885 of the Record of the Proceedings are in part as follows:

“The Secretary presented the following communication from the President of the Borough of Brooklyn, relative to specifications for asphalt pavements:

THE CITY OF NEW YORK.

Office of the President of the Borough of Brooklyn.

BROOKLYN, May 25, 1904.

To the Board of Estimate and Apportionment, No. 280  
Broadway, New York:

Dear Sirs—

On last Friday, at the instance of the President of the Borough of Manhattan, changes in the specifications for asphalt were made, as shown by resolution now in the hands of the Clerk of the Board of Estimate and Apportionment. At that time it was not made quite clear whether the resolution was to apply to all the boroughs or simply to Manhattan. I believe that that question is in some doubt. At the time, speaking for Brooklyn, I stated that I did not believe that the change would in any wise affect Brooklyn. Upon the adjournment of the Board of Estimate I immediately begun an investigation to ascertain whether such a change would have the effect of limiting the field of competition and would likely result in the advance of the price of asphalt paving. Such investigation has shown that it would, in Brooklyn, exclude three of the five competing companies, and these three comprising three of the largest that are doing work in the Borough of Brooklyn.

I herewith enclose the report of the Chief Engineer of the Bureau of Highways, giving a detailed explanation of how it would affect the laying of asphalt pavement in Brooklyn.

I therefore request that it be taken up as an emergency matter before the Board on Friday, and that, so far as the resolution was made to apply to the Borough of Brooklyn, it be amended so as to leave Brooklyn out, as such a

resolution at this time would greatly cripple the work of asphalt paving and would in all probability result in an advance of prices.

Yours very respectfully,

MARTIN W. LITTLETON,  
President, Borough of Brooklyn.

May 25, 1904.

HON. MARTIN W. LITTLETON,  
President, Borough of Brooklyn:

Dear Sir—I am in receipt of yours of the 24th inst., transmitting a copy of the resolution of the Board of Estimate and Apportionment making certain changes in the asphalt specifications now in use in this city. You say: “I wish you would advise me at once how this will affect our affairs in Brooklyn, and also any recommendations you may have to make in regard to the same.”

In reply to this I would say that this amendment adds three important conditions to the specifications governing refined asphalt, namely:

1. The exclusion of asphalt obtained from the distillation of asphaltic oils.
2. The exclusion of asphalt affected by the action of water.
3. The exclusion of asphalts that contain not less than 90 per cent. of bitumen soluble in carbon bi-sulphide.

Asphalts obtained from the Distillation of Asphaltic Oils.

It is almost impossible for any engineer in charge of work to know positively from what locality any asphalt is obtained. He must generally take the statement of the contractor, supplemented by what knowledge he may happen to have of the different asphalts.

This borough has been using asphalt from California for nine years, nearly all of which has been laid by the Brooklyn Alcatraz Asphalt Company.

The first pavements laid by this company were hard, and have not been very satisfactory. Latterly, however, the asphalt used by this company has been entirely different, and the pavements have been very satisfactory, among the very best in the borough. I have had pretty good evidence furnished me, although not positive proof, that quite a portion at least of the asphalt used by this company for many years has been obtained from the distillation of asphaltic oils. Whether this is true or not I cannot tell, but from the analysis of the refined asphalt, and certain information that I have obtained, I am satisfied in my own mind that it is.

While I do not wish to go on record as saying that all oil asphalts would make a good pavement, I should hesitate at the present time to prohibit the use of oil asphalts, while it is probable that good pavements have been laid in this borough with such asphalts. A particular case in point is the pavement between the Borough Hall and the Municipal Building. This, I have been told by California parties, was laid with asphalt obtained from the distillation of asphaltic oils. This pavement has been down now for about seven years, and except between street car tracks and where disturbed is practically as good as when laid.

The Interstate Paving Company also uses a California asphalt, but as their pavements have been down a little less than two years, while in good condition at the present time, they have not been laid long enough for one to pass an intelligent opinion upon their ultimate merit.

It is probable that this amendment would exclude all California asphalt from use.

2. The exclusion of asphalt affected by the action of water.

This clause is very general. It reads as follows:

‘It must not be affected by the action of water.’

There is no intimation as to what extent it may be affected, or in what way, so that interpreted literally it would mean that an asphalt affected in any way by water could not be used. I am inclined to think that all asphalts would be included under a strict and literal interpretation of this clause.

The Washington specifications for asphalt pavements contain a clause covering this point, which reads:

‘The asphalt cement shall be tested by coating on a piece of glass and immersing this coated glass in distilled water at a temperature between 70 and 90 degrees F. The surface of the asphalt cement must remain bright and show no corrosion or discoloration after immersion for a period of seven days.’

This clause is specific, and would allow a chemist to make a determination which could not be disputed. If any clause is to be inserted regarding the action of water I would suggest one somewhat on the lines of the Washington specifications, although I would wish to have a number of experiments made before determining positively.

The asphalt which is most affected by water is the Trinidad asphalt, which has been used in this country ever since asphalt pavements were first constructed, and which has given asphalt pavements the popularity which they have obtained.

3. The exclusion of asphalts that contain not less than 90 per cent. of bitumen soluble in carbon bisulphide.

This clause, if adopted, would exclude entirely Trinidad asphalt, as it is used to-day, as this material when refined contains, as a rule, not more than 55 per cent. of bitumen. It is possible that Trinidad asphalt could be



so refined that it would contain 90 per cent. of bitumen, but it would mean an entire revolution in the process of refining, and possibly make the cost too great to admit of use. In my judgment, therefore, if the amendment should be adopted, it would exclude entirely Trinidad asphalt from use in pavements. It certainly would as produced at the present time.

The effect, then, of inserting this amended clause in the specifications, in my judgment, would be to exclude from our work the material at the present time used by the Cranford Company, the Brooklyn Alcatraz Asphalt Company and the Interstate Paving Company.

The Cranford Company laid the first asphalt pavements in this borough, more than twenty years ago, and have been engaged in the business ever since. Of the 3,110,418 yards of asphalt pavements in this borough at the first of the year more than one-half have been laid by the Cranford Company, or the company of which they are the successors. Some of the pavements laid by them were laid in 1885, a particular case being Joralemon Street, between Hicks and Court Streets. The pavements laid by this company speak for themselves.

The next largest amount of pavement laid in the borough by any one company is 549,560 yards, which have been laid by the Brooklyn Alcatraz Asphalt Company. With the exception of the pavements laid in 1895, the first year this company was organized, or rather the company of which the Brooklyn Alcatraz Asphalt Company is the successor, are all in good condition at the present time.

The Interstate Paving Company have used a so-called Obispo California asphalt. Of their pavements I have already spoken.

It does not seem to me that the asphalt condition in Brooklyn is such as to warrant, at the present time, any such radical change in the specifications.

As I have said, it would, in my judgment, exclude all asphalts used at the present time by the contractors in this borough, except those used by the Eastern Bermudez Asphalt Paving Company with the Uvalde Asphalt Paving Company, which I do not think would be a desirable thing to do, as this borough wants more companies laying good pavements rather than fewer.

I also think that it would be impolitic to make these changes just at the time when the Borough is advertising for a large amount of asphalt pavements, as it would certainly make the situation very uncertain to three of the five companies doing business here, and this would naturally tend to increase prices. If it be deemed necessary to make these radical changes, which I am not ready to admit at present, I would recommend that they be delayed until there has been given a greater opportunity to investigate the exact effects of the amendment, so that the change might be made sufficiently far ahead of the giving out of any large amount of work that the asphalt companies might be able to prepare themselves for the change.

I do not know, of course, what arrangements the different companies could make to procure asphalts that would conform to the requirements of this amendment, but this report is based upon my judgment as to its effect upon the asphalts now being used.

Respectfully,

GEO. W. TILLSON,  
Chief Engineer.

The following resolution was offered:

Resolved, That the following resolution adopted at a meeting of the Board of Estimate and Apportionment held May 20, 1904, which reads as follows—then is inserted in the minutes the resolution of May 20, 1904, which I have already read—be and the same is hereby approved.

'And the Presidents of the four other Boroughs of The City of New York are hereby requested and instructed to amend and change their specifications to accord with the above technical requirements,'—be and the same is hereby amended by striking therefrom the words:

'And the Presidents of the four other Boroughs of The City of New York are hereby requested and instructed to amend and change their specifications to accord with the above technical requirements.'

Which was adopted by the following vote"—giving the vote.

MARVYN SCUDDER, recalled for further examination, testified as follows:

*Examined* by Commissioner MITCHEL:

Q. Mr. Scudder, did you make an examination of the record of fire burns reported by the inspectors of the Bureau of Highways for the year 1906?

A. I did.

Q. What did you find the total number of fire burns so reported to be?

A. I cannot tell you the exact figure. I can tell you in instances what it was.

Q. Well, tell us that?

A. Letter of September 25, 1906, by George R. Olney to the Borough President, reported 85 fire burn holes.

Letter of September 25, 1906, reported 184 holes.

Letter of October 15, 1906, reported 12 holes.

Another letter of October 15, 1906, reported 68 holes.

Letter of December 3, 1906, reported 9 holes.

Another letter of December 3, 1906, reported 4 holes.

Another letter of December 3, 1906, reported 348 holes.

Letter of December 20, 1906, reported 38 holes.

Another letter of December 20, 1906, reported 208 holes.

Another letter of December 20, 1906, reported 189 holes.

Another letter of December 20, 1906, reported 248 holes.

Letter of December 21st, 149 holes.

Another letter of December 21st, 52 holes.

Another letter of December 21st, 9 holes.

Another letter of December 21st, 9 holes.

Letter of December 24th reported 571 holes.

That is, those figures are computed by me from counting up the different items.

*Q.* Mr. Scudder, in the case of that last letter, reporting 571 holes, was the list of given holes or defects appended to that letter?

*A.* It was.

*Q.* Were those holes reported by the inspectors of the Bureau?

*A.* They were. I should say by the inspectors under the Chief Engineer.

*Q.* Did those inspectors in any way certify to the list which they handed in?

*A.* Only in the way of handing in their note books specifying the number of fire burns in different streets.

*Q.* What was done with that list?

*A.* That list was made up by Mr. Goodsell for Mr. Olney, as I understand, from the note books of the inspectors on file in Mr. Goodsell's desk.

*Q.* Was it forwarded to the Borough President?

*A.* The letter was forwarded to the Borough President.

*Q.* Was the list forwarded?

*A.* The list was forwarded with the letter.

*Q.* Did either the Chief Engineer or Mr. Goodsell approve or certify to that list before forwarding it to the Borough President?

*A.* Mr. Olney signed these letters in every case.

*Q.* Signed the letters?

*A.* Signed the letters that were attached to the lists.

*Q.* Did those letters refer to the lists?

A. Those letters referred to the lists, spoke specifically of them.

Q. Have you examined the original of the letter and of the list?

A. I examined the original of the letter of December 24, 1906, containing the 571 items. In regard to the others, I examined copies appearing in Mr. Olney's letter book.

Q. Now in regard to that list containing 571 items, did you follow it up to find out whether it was approved by the Borough President or not?

A. I did.

Q. What did you find?

A. I found that the list had been returned with the letter, and a letter from the Borough President with it stating that the fire burns had been inspected with the result as shown in the list, and most of them were crossed out?

Q. Crossed out? What do mean by crossed out?

A. Crossed out in pencil, and each sheet, as I recollect, was initialed D.

Q. Was any notation made to show what, in the opinion of the person inspecting, the defect was due to in fact?

A. Apparently not, except that the letter stated that they were not fire burns, according to the examining inspector of the Borough President.

Q. Do you recollect any other notation made on the list as to the actual cause of the defect found?

A. I recollect in pencil written on the list "No fire burns."

Q. Any other notation?

A. Not that I recollect at the moment, but the notations on the list were in the form of "No fire burns" in the different instances.

Q. Of the 571 items on that list, how many were allowed by the Borough President as fire burns and how many were disallowed?

A. Out of the 571 items, 32 only were allowed, and 439 were disallowed.

Q. 439?

A. I correct my testimony, 539.

Q. Then of 571 fire burns reported by the Chief Engineer, 539 were disallowed by the Borough President, is that right?

A. 539 were disallowed by the Borough President and his inspector.

Q. That disallowance was based on what inspection?

A. Inspection made by the Borough President's inspector, Mr. Atwell.

Q. And the 571 items had been reported by the inspectors of the Bureau, is that right?

A. They had been reported by the inspectors of the Bureau and compiled by Mr. Goodsell.

Q. And also approved by the Chief Engineer, is that right?

A. By the Chief Engineer over his own signature.

Q. Then one set of inspectors in the Bureau of Highways found 571 fire burns, and in the case of the same fire burns another inspector in the office of the President of the Borough of Manhattan found only 32, is that right?

A. Yes.

Q. There was a difference of 539 fire burns out of 571 in the opinion of these two inspectors, is that right?

A. That is correct.

Commissioner MITCHEL—These papers referred to by the witness have been requested of the counsel of the President of the Borough and they were promised for this morning, but evidently it is impossible to produce them in time, and we will therefore receive them in evidence on Wednesday morning, if they can be found by that time.

Adjourned to May 8, 1907, at 10.30 A. M.

New York, May 8, 1907.

Met pursuant to adjournment.

Present—Commissioners HERTLE and MITCHEL, and  
MR. BRUERE.

Commissioner MITCHEL—Is Michael Hallanan present?

MR. HALLANAN—Yes, sir.

Commissioner MITCHEL—Is John M. Coon here?

MR. COON—Yes, sir.

Commissioner MITCHEL—Is Thomas A. Tydings present?

(No response).

Commissioner MITCHEL—The stenographer will note the fact that Thomas A. Tydings——

MR. ——— —He is here somewhere, sir.

Commissioner MITCHEL: He doesn't answer to his name. I will call his name later. William H. Starr.

MR. STARR—Yes, sir.

Commissioner MITCHEL—Thomas Blake.

(No response.)

Commissioner MITCHEL—Note the fact that Thomas M. Blake fails to answer to his name.

EDWIN WOODCOCK.

MR. WOODCOCK—Yes, sir.

Commissioner MITCHEL—John G. Wendel.

MR. KOSS—He is represented.

MR. JOHN W. BROWN—Did you call Mr. Tydings?

Commissioner MITCHEL—Yes.

MR. BROWN—Mr. Commissioner, I am counsel for the three witnesses subpoenaed to attend before you this morning, Mr. Tydings, Mr. McCleery and Mr. Blake. On behalf of those three witnesses I desire to object to the Commissioners inquiring into or conducting any examination with reference to the testimony of these three witnesses upon the ground that the Commissioners have no power to conduct this examination and that the examination which the Commissioners of Accounts are authorized to conduct under the Charter does not contemplate the examination of witnesses who have sustained no business relations to the City of New York and are not employees of the City. Neither of these gentlemen whom I represent are officials of the City——

Commissioner MITCHEL—Do you represent Mr. Tydings?

MR. BROWN—Yes, Mr. Tydings.

Commissioner MITCHEL—Do you contend that Mr. Tydings has had no business relations with the City of New York?

MR. BROWN—Mr. Tydings has probably had some contracts with the City of New York, but so far as Mr. Blake and Mr. McCleery are concerned, they have had absolutely no business relations with the City.

Commissioner MITCHEL—Do you contend that Mr. McCleery has had no business relations with the City?

MR. BROWN—That is my contention, that they are not employees of the City and have not been employees of the City at any time, and therefore the Commissioners have no power to examine these witnesses. Now, my clients of course are not desirous of engaging in any litigation at all or to intentionally



show a disrespect to this Commission. They simply feel that being business men, taken away from their business, that they should at least be apprised of the nature of this inquiry so far as they are concerned, and that they should be informed of the particulars upon which you desire to interrogate them.

Commissioner MITCHEL—The objection is overruled. The witnesses will be apprised of the nature of the inquiry when they take the stand.

Mr. BROWN—To which, of course, you give me an exception?

Commissioner MITCHEL—Of course.

Mr. BROWN—I should like the privilege of representing these three witnesses on the examination and also that I be afforded an opportunity of conducting a re-direct examination, if I should deem it necessary.

Commissioner MITCHEL—Witnesses in an inquiry such as this are not entitled to representation by counsel, and that representation having been denied to the President of the Borough, will also be denied to the witnesses now about to be called.

Mr. BROWN—You will also accord me an exception to that ruling.

Continuation of the examination of OTTO H. KLEIN:

*Examined by Commissioner MITCHEL:*

*Q.* Mr. Klein, will you summarize the criticisms which you have to offer and which you have touched upon in your testimony of the methods and systems in the conduct of the business of the Bureau of Highways?

*A.* Yes, sir. City surveyors should not be employed by the Bureau. Assistant engineers should be appointed

instead. Preliminary surveys and estimates should be more accurate and more comprehensive.

Bids should be advertised for a contract to be let early in the year.

Only competent inspectors should be employed. Work and material faulty through poor inspection. No inspectors at asphalt plants. Inspector at wood plant should be paid by the City. Inspectors' records should be made more comprehensive and should be compiled to serve as cost records of work.

Repairs to pavements should be made promptly.

Force of inspectors of maintenance should be doubled and Bureau divided into inspection districts.

Pipe galleries should be constructed. Public service corporations should not be allowed to inconvenience the public in laying sub-surface structures.

Corporation inspectors should be paid by the City and be a part of the regular force.

Maps showing all existing sub-surface structures should be made.

Commissioner MITCHEL—That is all, Mr. Klein.

WALTER B. GORMLY, recalled for further examination, testified as follows:

*Examined by Commissioner MITCHEL:*

Q. Mr. Gormly, have you made an examination to ascertain the area in which the high-pressure water mains are being laid by the City?

A. I obtained that information this morning.

Q. Do you know what the limits of that area are?

A. Yes, sir.

Q. What are they?

A. It starts at the North River; they run east to Broadway on Twenty-third Street——

Q. North on Twenty-third Street?

A. Beginning north on Twenty-third Street, they run east to Broadway, and south on Broadway to Fourteenth Street, and then east to Third Avenue and the Bowery, and south to Chambers Street, and west again to the North River.

Q. Then, the south limit is Chambers Street?

A. Chambers Street.

Q. The east limit is the Bowery and Broadway, is that right?

A. Yes, sir.

Q. The north limit is Twenty-third Street?

A. Yes, sir.

Q. And the west limit is the Hudson?

A. Yes, sir.

Commissioner MITCHEL—That is all.

FRANK KUHN, called as a witness, being duly sworn, testified as follows:

*Examined* by Commissioner MITCHEL:

Q. Mr. Kuhn, what is your business?

A. I am an examining inspector.

Q. Examining inspector in whose employ?

A. Commissioners of Accounts' office.

Q. In the office of the Commissioner of Accounts?

A. Yes, sir.

Q. Have you had occasion in the performance of your duties to inspect the pavements at any time?

A. I did.

Q. Have you become acquainted with any cases of openings in the street pavements by public service corporations?

A. I did.

Q. Can you name any cases in which the pavements

were opened by such corporations to a greater extent than the length of one block at any one given time?

A. First Avenue.

Q. Where?

A. From Fourth to Ninth Street.

Q. Any others?

A. Second Avenue—well, Second Avenue was indefinite, that is, from Twenty-third, you might say, up to Fifty-ninth Street, there were two, three and four blocks at a time.

Q. At what time did the two openings that you have just mentioned occur?

A. In the summer time.

Q. Well, I am speaking of First and Second Avenues. In what year, what month?

A. Well, First Avenue was in 1906, and Second Avenue, as near as I can remember, about 1905.

Q. As to First Avenue, in the summer of 1906?

A. Yes.

Q. And Second Avenue, in the summer of 1905?

A. Yes, sir.

Commissioner MITCHEL—That is all, Mr. Kuhn.

EDWARD C. BEECHERER, called as a witness, being duly sworn, testified as follows:

*Examined* by Commissioner MITCHEL:

Q. Mr. Beecherer, what is your business?

A. Inspector, employed by the Bureau of City Betterment, now the Bureau of Municipal Research.

Q. How long have you been employed by the Bureau?

A. For a year and four months.

Q. Did you make an examination of any of the pavements with a view to ascertaining the extent of the corporation openings at any time in the Borough?

A. I did.

Q. When?

A. During the months of April, May and June, 1906.

Q. With what view did you make that examination?

A. To ascertain the number of blocks that were open continuously.

Q. Did you take notes of your examination in any cases?

A. I did.

Q. Will you tell us what you found? You may refer to your notes?

A. On Lexington Avenue, from Thirty-Second to Eighty-sixth Street, on April 18th—

Q. Of what year?

A. 1906; a distance of fifty-four blocks, trenches were dug and open in thirty-two blocks.

Q. On that day?

A. On that day.

Q. Were they continuously so open, or were the open spaces broken? I mean by that, were there spaces open followed by closed blocks?

A. There were open spaces followed by closed blocks. The material for constructing conduits was stored on the streets along the entire distance that I examined, except the blocks where the conduits had already been laid.

Q. Did you find any case where two blocks consecutively were open?

A. I did.

Q. Did you find any case where more than two blocks continuously were open?

A. Yes, sir, I did.

Q. Will you tell us the greatest number of blocks continuously open that you found?

A. The greatest number of blocks was  $12\frac{1}{2}$  continuously.

Q. You mean that there was an open trench extending  $12\frac{1}{2}$  blocks?

A. On Lexington Avenue, yes, sir, on that day.

Q. Did you find any other cases?

A. The next was 9 blocks. Another for 6 blocks and another for  $4\frac{1}{2}$  blocks.

Q. Will you name the year again in which that occurred?

A. 1906.

Q. 1906?

A. 1906.

Q. Did you find any other street where corporation openings extended for more than a block?

A. Yes, sir; on Eighth Avenue.

Q. Will you tell us what you found there?

A. On Eighth Avenue, I have got them recorded by blocks.

Q. Give us the record as briefly and as fast as you can?

A. Well, I can call the record off here as I have it.

Q. First tell us what day you made the examination on?

A. On April 18th and 19th.

Q. Of what year?

A. Of 1906.

Q. All right, give us the result of your examination?

A. I can give in detail all blocks or I can count the number of blocks open and the number of blocks——

Q. Give the details by blocks?

A. Fourteenth Street to Fifteenth Street, east side—these are all east side—closed; Fifteenth to Sixteenth Street, closed; Sixteenth to Seventeenth Street, closed; Seventeenth to Eighteenth Street, half open and half closed. By closed I mean that the conduits had already been laid and the trench refilled. Eighteenth to Nineteenth Street, open; Nineteenth to Twentieth Street, open; Twentieth to Twenty-first Street, open; Twenty-first to Twenty-second Street, closed, with a large opening at the beginning of Twenty-first Street and that had not been closed; Twenty-second to Twenty-third Street, the same; Twenty-third to Twenty-fourth Street, the same; Twenty-fourth Street, a large opening at Twenty-fourth Street, but from Twenty-fourth to Twenty-fifth Street

was open; Twenty-fifth to Twenty-sixth Street, open; Twenty-sixth to Twenty-seventh Street, half closed and half opened; Twenty-seventh to Twenty-eighth Street, open; Twenty-eighth to Twenty-ninth Street, open; Twenty-ninth to Thirtieth Street, open; Thirtieth to Thirty-first Street, not opened; Thirty-first to Thirty-second Street, that is the Pennsylvania excavation, that is entirely excavated; Thirty-second to Thirty-third Street, the same; Thirty-third to Thirty-fourth Street, hadn't been opened; Thirty-fourth to Thirty-fifth Street, not opened; Thirty-fifth to Thirty-sixth Street, not opened; Thirty-sixth to Thirty-seventh Street, not opened; Thirty-seventh Street, a large opening at Thirty-seventh Street, but between Thirty-seventh and Thirty-eighth Street, not opened; a large opening at Thirty-eighth Street; the block from Thirty-eighth to Thirty-ninth Street was also open; Thirty-ninth to Fortieth Street, open; Fortieth to Forty-first Street, open; Forty-first to Forty-second Street, open; Forty-second to Forty-third Street, open; Forty-third to Forty-fourth Street, open; Forty-fourth to Forty-fifth Street, closed; Forty-fifth to Forty-sixth Street, closed; Forty-sixth to Forty-seventh Street, closed; Forty-seventh Street, a large opening at Forty-seventh Street, but Forty-seventh to Forty-eighth Street were closed; Forty-eighth to Forty-ninth Street, open; Forty-ninth to Fiftieth Street, open; Fiftieth to Fifty-first Street, open; Fifty-first Street to Fifty-second Street, open; Fifty-second Street to Fifty-third Street, open; Fifty-third to Fifty-fourth Street, open; Fifty-fourth to Fifty-fifth Street, open; Fifty-fifth to Fifty-sixth Street, closed; Fifty-sixth to Fifty-seventh Street, closed; Fifty-seventh to Fifty-eighth Street, open; Fifty-eighth to Fifty-ninth Street, open; Fifty-ninth Street, the conduits, the opening crossed from the east side, west side of Eighth Avenue; Fifty-ninth to Sixtieth Street was half open and half closed; Sixtieth to Sixty-first Street, half open and half closed; Sixty-first to Sixty-second Street, closed; Sixty-second to Sixty-third Street,

half open, half closed; Sixty-third to Sixty-fourth Street, open; Sixty-fourth to Sixty-fifth Street, half open, half closed; Sixty-fifth to Sixty-sixth Street, half open, half closed; Sixty-sixth to Sixty-seventh Street, open; Sixty-seventh to Sixty-eighth Street, half open, half closed; Sixty-eighth to Sixty-ninth Street, not opened; Sixty-ninth to Seventieth Street, not opened; Seventieth to Seventy-first Street, open; Seventy-first to Seventy-second Street, open; Seventy-second to Seventy-third Street, open; Seventy-third to Seventy-fourth Street, open; Seventy-fourth to Seventy-fifth Street, half opened, half closed; Seventy-fifth to Seventy-sixth Street, open; Seventy-sixth to Seventy-seventh Street, open; Seventy-seventh to Seventy-eighth Street, open; Seventy-eighth to Seventy-ninth Street, not opened; Seventy-ninth to Eightieth Street, not opened; Eightieth to Eighty-first Street, not opened; Eighty-first to Eighty-second Street, closed; Eighty-second to Eighty-third Street, closed; Eighty-third to Eighty-fourth Street, open; Eighty-fourth to Eighty-fifth Street, three-quarters opened, one-quarter closed; Eighty-fifth to Eighty-sixth Street, one-quarter open, three-quarters closed; Eighty-sixth to Eighty-seventh Street, opened; Eighty-seventh to Eighty-Eighth Street, half open, half closed; Eighty-eighth to Eighty-ninth Street, half open, half closed; Eighty-ninth Street, a large opening at Eighty-ninth Street, the rest to Ninetieth Street not opened; Ninetieth to Ninety-first Street, half open, half closed; Ninety-first to Ninety-second Street, open; Ninety-second to Ninety-third Street, open; Ninety-third to Ninety-fourth Street, open; Ninety-fourth to Ninety-fifth Street, open; Ninety-fifth to Ninety-sixth Street, open; Ninety-sixth to Ninety-seventh Street, open; Ninety-seventh to Ninety-eighth Street, not opened; Ninety-eighth Street, a large opening at Ninety-eighth Street, the rest not opened; Ninety-ninth to One Hundredth Street, a large opening at Ninety-ninth Street, rest not opened; One Hundredth to One Hundred and First Street, open; One Hundred and First Street to One



Hundred and Second Street, half open, half closed; One Hundred and Second Street to One Hundred and Third Street, open; One Hundred and Third to One Hundred and Fourth Street, open; One Hundred and Fourth to One Hundred and Fifth Street, open; One Hundred and Fifth to One Hundred and Sixth Street, open; One Hundred and Sixth to One Hundred and Seventh Street, open; One Hundred and Seventh to One Hundred and Eighth Street, open; One Hundred and Eighth to One Hundred and Ninth Street, open, that is, one-quarter open and three-quarters closed; One Hundred and Ninth to One Hundred and Tenth Street, not opened; One Hundred and Tenth to One Hundred and Eleventh Street, not opened; One Hundred and Eleventh to One Hundred and Twelfth Street, closed; One Hundred and Twelfth to One Hundred and Thirteenth Street, closed; One Hundred and Thirteenth to One Hundred and Fourteenth Street, closed; One Hundred and Fourteenth to One Hundred and Fifteenth Street, closed; One Hundred and Fifteenth to One Hundred and Sixteenth Street, open; One Hundred and Sixteenth to One Hundred and Seventeenth Street, open; One Hundred and Seventeenth to One Hundred and Eighteenth Street, half open, half closed; One Hundred and Eighteenth to One Hundred and Nineteenth Street, half open, half closed; One Hundred and Nineteenth to One Hundred and Twentieth Street, not opened; One Hundred and Twentieth to One Hundred and Twenty-first Street, not opened; One Hundred and Twenty-first to One Hundred and Twenty-second Street, open; One Hundred and Twenty-second to One Hundred and Twenty-third Street, half open, half closed; One Hundred and Twenty-third to One Hundred and Twenty-fourth Street, open, with a large opening at One Hundred and Twenty-fourth Street, which was the last opening made.

*Q.* Mr. Beecherer, do you know the name of the corporation which made these openings that you have just testified to?

A. These openings were made by the Empire City Subway Company.

Q. How did you learn that?

A. By inquiry at the Bureau of Highways.

Q. Do you know who it was at the Bureau of Highways that told you that the openings were made by the Empire City Subway Company?

A. Mr. Gilroy.

Q. Do you know what Mr. Gilroy's position is in the Bureau of Highways?

A. Assistant Chief Engineer, I believe.

Q. Do you know the name of the corporation that made the openings which you testified to in Lexington Avenue?

A. It was the Empire City Subway Company also.

Q. How did you learn that fact?

A. By the same inquiry at the Bureau of Highways.

Q. Of the same person?

A. Yes, sir.

Commissioner MITCHEL—That is all.

EDWIN WOODCOCK, called as a witness, being duly sworn, testified as follows:

*Examined* by Commissioner MITCHEL:

Q. Mr. Woodcock, what is your business?

A. Real estate.

Q. Where is your office, Mr. Woodcock?

A. 20 Eighth Avenue.

Q. Are you in business for yourself?

A. No, I have a partner, Woodcock & Britt.

Q. How long have you been in the real estate business, Mr. Woodcock?

A. Going on about twenty-five years.

Q. In the same firm?

A. No, not in the same firm.

Q. How long has that firm been in existence?

A. About sixteen years.

*Q.* Did your firm at any time represent the owner of the premises No. 49 Christopher Street?

*A.* In what respect?

*Q.* As agents.

*A.* Agents, certainly.

*Q.* When did you begin to represent the owner of those premises?

*A.* In 1901—1891.

*Q.* Do you still represent the owner?

*A.* Still represent the owner, yes.

*Q.* Did you say 1891 or 1901?

*A.* 1901.

*Q.* What is the name of the owner?

*A.* It belongs to Jordan.

*Q.* An estate or an individual?

*A.* An estate.

*Q.* The estate of Jordan?

*A.* The estate of Jordan, yes. I took the property on the 1st day of August, 1901—well, you are asking me another question now.

*Q.* Go ahead and tell us when you took possession and how?

*A.* I have had it some time.

*Q.* Well, you say that the property is owned by the estate of Mr. Jordan?

*A.* Yes.

*Q.* What is Mr. Jordan's full name, please?

*A.* William S. Jordan.

*Q.* Well, now, were you agents for this property in the years 1904, 1905 and 1906?

*A.* Yes, sir.

*Q.* Will you tell us who the tenant of that property was in the year 1904, who the tenant of No. 49 Christopher Street was in 1904?

*A.* You mean in the store?

*Q.* Yes?

*A.* Yes.

*Q.* Who was it?

A. I cannot think of his name now. I have it right on the end of my tongue, too.

Q. I will give you time. You can refer to your notes, if you have any notes with you?

A. No, I have no notes here. I know who you mean.

Q. Did you bring any books of account?

A. No, sir; the only memorandum I got is this here, a memorandum from the 1st day of August, 1901, to May 1st, 1906.

Q. What?

A. That is the time the tenant was in there. I cannot remember the name.

Q. If I excuse you from the stand, can you refresh your memory and come back later?

A. Yes.

Commissioner MITCHEL—I will excuse the witness. He may refresh his memory and I will recall him later.

WILLIAM H. STARR, called as a witness, being duly sworn, testified as follows:

*Examined* by Commissioner MITCHEL:

Q. Mr. Starr, what is your business, please?

A. Civil engineer.

Q. And your place of business?

A. 3 West Eighth Street.

Q. Have you ever represented in any capacity the owner or owners of No. 49 Christopher Street in this City?

A. Yes, sir.

Q. In what capacity did you represent them, Mr. Starr?

A. The property belongs to—it belonged to my wife's father—he died in 1902, and since 1903 I have been looking after their estate.

Q. Well, now, in what sense did you look after the estate, Mr. Starr?

A. Simply looked after the repairs. The rents were all handled through the agents, Woodcock & Britt.

Q. Did you ever see the books of account of Woodcock & Britt or the rent receipts showing the name of the tenant of that property?

A. Yes, sir, had statements from them giving the names of the tenants.

Q. Of that property?

A. Of that property, all the property.

Q. Do you know who the tenant of that property was during the years 1904, 1905 and 1906?

A. The name is Walker.

Q. Do you know the full name?

A. No, sir, I do not. On the statements the name was simply Walker.

Q. Do you know how the rent was paid?

A. It was paid at their office.

Q. Do you know whether it was paid by check or in cash?

A. I could not tell you that, sir.

Q. You say that the agents from time to time rendered statements to you?

A. Every month.

Q. Did those statements contain the full name of the tenant?

A. No, sir, those real estate statements, very few of them have the full names, usually the last name.

Q. Now can you tell us how long this tenant Walker was a tenant of No. 49 Christopher Street?

A. Yes, sir, from August, 1901, until May, 1906.

Q. Until May, 1906?

A. Yes, sir.

Q. Was he the only tenant of No. 49 Christopher Street during that time?

A. Well, he was the only tenant that was known, that is, it was rented to him. The store was divided by a partition, but I don't know whether he sublet or not.

*Q.* But he was the tenant of the entire property, is that right?

*A.* No, sir, only the store.

*Q.* Now what relation does the store bear to the rest of the property?

*A.* There are two floors above the store, and a rear house with three floors, on the lot.

*Q.* Now how was the rear house occupied?

*A.* It is a tenement house.

*Q.* Tenement house?

*A.* Yes, sir.

*Q.* Were there any offices or stores in the rear house?

*A.* No, sir.

*Q.* Were there any offices or stores in the front house other than the one rented to the tenant Walker?

*A.* Only the store, only the first floor.

*Q.* That was the only store or office in the building?

*A.* The others were living apartments.

*Q.* How were those premises rented to the tenant Walker, by written lease or verbal?

*A.* No, sir, month to month, monthly tenant.

*Q.* Did you ever visit the premises during the tenancy of Walker?

*A.* Yes, sir.

*Q.* Can you tell us for what purposes that store rented to Walker was used?

*A.* Apparently as a carpenter shop, the store and cellar, he had the cellar too in addition to the store.

*Q.* Apparently a carpenter shop?

*A.* Yes, sir.

*Q.* What led you to believe it was used as a carpenter shop, Mr. Starr?

*A.* Well, the sign on the window, I don't know what his first name was, Walker & Son, Carpenters and Builders, and then the store had lumber in, and there was lumber unloaded on the sidewalk several times.

*Q.* You saw the name Walker on the window of that store?

A. Yes, sir.

Q. Or Walker & Son?

A. I do not remember exactly what the sign read, I think it was Walker & Son, that is my recollection.

Q. Did you have any knowledge, Mr. Starr, as to the character of the business transacted in that shop?

A. You mean as to what they did?

Q. Yes?

A. No, simply would go in there looking after the repairs, that is all, and would ask no questions.

Q. Can you form any estimate of the number of times you visited the premises during the years 1904, 1905 and 1906?

A. Oh, I should say probably forty or fifty times, maybe oftener than that.

Q. And can you say whether or not at all those visits you saw the name Walker written on the sign?

A. I could not say.

Q. Can you say that you saw it on any of those visits?

A. Well, that is my recollection, that that name was on the glass, and I think it was there when they moved away and it was taken off by a painter.

Q. Do you know who was in charge of the shop and of the business carried on there?

A. No, sir.

Q. Did you ever see any carpenter work done in the shop?

A. Yes, I borrowed some of their tools one day to do some repairs, and they did some work on the building there, repaired, I think, the cellar door.

Q. Ever see any other carpentry work done there beyond what you have described?

A. No, as a matter of fact I didn't notice what was going on there, I was simply looking after repairs, that is all I was looking after.

Q. Have you any memoranda in your possession or are there any in the possession of the estate that you represent which will refresh your memory as to the full name of the tenant Walker?

A. No, I don't think I have. Those real estate statements are long statements and you see there are about fifteen or sixteen tenants in that building, and then there was in addition to that the rent roll of some other property, simply the last names.

Q. I believe you testified that the only shop or office on these premises was the store leased to this tenant that you named, Walker?

A. Yes, sir. I noticed Mr. Woodcock testified the property was in the name of William S. Jordan. It is Richard Jordan.

Commissioner MITCHEL—That is all.

EDWIN WOODCOCK, recalled for further examination, testified as follows:

*Examined by Commissioner MITCHEL:*

Q. Mr. Woodcock, have you refreshed your memory as to the name of the tenant of 49 Christopher Street during the years 1904, 1905 and 1906?

A. Yes, Mr. Walker.

Q. Do you know the full name of the tenant?

A. I do not know, no, sir. I do not want to state I do know, because I do not.

Q. Have you ever met that tenant, did you ever meet that tenant personally?

A. I have seen him in the office, yes, he come in and paid his rent once in a while.

Q. Have you in your real estate office any books or records which will show the full name of that tenant?

A. I may have, I wouldn't be sure.

Q. Now, Mr. Woodcock, those books or records were called for in this subpoena, and while I do not——

A. You see I write the names down—excuse me if I am interrupting you—we write the name down as Walker; with tenants as a general thing we do not put the full name down, that is the first name, we write him down as



Walker, that is a monthly tenant. If we have a lease tenant, then we have a lease with him.

*Q.* Now those books or records, if there are any such in your office, were called for in this subpoena, and I shall have to ask you to look through your records and see whether you have any showing the full name of this tenant?

*A.* The full name of the tenant?

*Q.* Yes. Do you know that this tenant whose name you say was Walker occupied these premises in the year 1904?

*A.* Yes, sir.

*Q.* Did he pay you rent for the premises during that year?

*A.* Yes, sir.

*Q.* Did anybody else pay you rent for the premises during that year?

*A.* No, sir.

*Q.* What was the nature of the building which he rented on those premises?

*A.* Run it as a store, carpenter shop.

*Q.* Do you know that this tenant Walker was the tenant of these premises in the year 1905?

*A.* 1905, yes.

*Q.* And was he also the tenant of these premises during part of the year 1906?

*A.* Up to May, 1906.

*Q.* Did this tenant Walker pay the rent for the premises during all that time?

*A.* Yes, sir.

*Q.* How was the rent paid, Mr. Woodcock?

*A.* He generally paid by check.

*Q.* By check?

*A.* Yes.

*Q.* Have you any entry in your cash books or other books of the receipt of those checks or in any account books in your office?

*A.* I might find it if I looked back for it. Certainly I

always keep an entry of them, because when I make a deposit I always put the check down on the book.

*Q.* Do you know the business of this tenant Walker to whom you have referred?

*A.* Only as a carpentry place.

*Q.* You know nothing else of him than that?

*A.* No, sir.

*Q.* Well now, Mr. Woodcock, I shall have to excuse you and ask you to look into your records for those two matters, the full name of this tenant and whether your books of account show any entries of the receipt of his checks in payment for the rent?

*A.* Well, of course, the books will show the receipt. The date of the payments.

*Q.* And the date of the payments, whether by check or not, and any other information in your records concerning the tenancy of this man whom you have called Walker. Now, Mr. Woodcock, I will excuse you. I am sending a messenger up with you, and I will have to ask you to return at two o'clock with that information?

Commissioner MITCHEL then called JOHN D. WENDEL.

Mr. Koss—In answer to that subpoena we present Mr. WILLIAM O. LUDLOW, the bookkeeper of Mr. Wendel.

Commissioner MITCHEL—We accept Mr. Ludlow, certainly.

WILLIAM O. LUDLOW, called as a witness, being duly sworn, testified as follows:

*Examined by Commissioner MITCHEL:*

*Q.* Mr. Ludlow, what is your business, if you please?

*A.* I am bookkeeper for the Wendel Estate.

*Q.* For the Wendel Estate?

*A.* Yes, sir, J. G. Wendel.

*Q.* For Mr. John D. Wendel or John G. Wendel?

A. John G. is the executor and John D. is the estate.

Q. Have you charge of the leasing of premises owned by the estate?

A. Not absolute charge, I have general charge, I am in the office.

Q. Have you charge of the accounts of the property leased?

A. Yes, sir.

Q. Have you physical charge of the leases of those premises?

A. Yes, sir.

Q. (Handing paper) I show you this lease, Mr. Ludlow, and ask you what that lease is?

A. That is a lease to William H. Walker.

Q. By whom?

A. By John G. Wendel.

Q. Of what premises?

A. It is stated here, it is a certain lot of land on the south side of West Fifty-first Street about one hundred and forty-seven feet easterly from the easterly side of Eighth Avenue, and extending from thence westerly twenty-three feet in width, one hundred feet five inches in depth, to the center line of the block, and known by Ward Map No. 46 in the Twenty-second Ward in the City of New York.

Q. Do you know the street number of the premises described in this lease, Mr. Ludlow?

A. No, sir.

Q. Are there in Mr. Wendel's office, or within your charge any records which will show the street number of these premises?

A. No, sir.

Q. Mr. Ludlow, is there anybody in your office who can identify the location of this street property from the lease or from any other records, that is, the street number?

A. Only from that.

Q. There is nobody in the office who knows the street number of these premises?

A. No, sir.

Q. Does Mr. Wendel or the Wendel Estate own any other property on Fifty-first Street?

A. Yes, sir.

Q. Does it own the adjoining property to this described in this lease?

A. Yes, sir.

Q. On each side?

A. On each side.

Q. On both sides?

A. Yes, sir.

Q. For how great an extent?

A. Well, I think half a block, from Broadway.

Q. Half a block in each direction?

A. Towards Eighth Avenue, that is on the south side.

The lease produced by the witness was admitted in evidence and marked Exhibit No. 169.

Q. How does the tenant of the premises leased by this lease make payment of the rent?

A. Well, I cannot say whether by check or by cash, but it has been paid as per this memorandum which I have here.

Q. Have you made out a memorandum of the rent receipts for this property?

A. Yes, sir (producing paper).

Q. Will you tell us the dates on which the rent was paid by this tenant?

A. January 15th, 1906, \$200; May 7th, same year, \$200; September 8th, same year, \$200, and 1907, January 8th, \$200, and taxes of 1906, \$443.67.

Q. Have any payments been made since that last date?

A. No, sir, due but not paid.

Q. Due but not paid?

A. Yes, sir.

Q. Are the taxes on this property paid directly to the estate or directly to the City by the tenant?

A. The tenant pays to us, we pay to the City.

*Q.* Do you know, Mr. Ludlow, whether any payments have been made by this tenant by check?

*A.* I cannot just remember.

*Q.* Are there any records in your office which would show that?

*A.* There might be, in my check books, I might find a check of \$200, Walker, that is the only evidence I could get at.

*Q.* Will you examine your records for that, Mr. Ludlow, please?

*A.* I will.

*Q.* Do you know for what purpose these premises are leased by the tenant Walker?

*A.* No, sir, except to make money out of them.

Commissioner MITCHEL—I will read Exhibit No. 169 as follows:

THIS INDENTURE, made the fifteenth day of January, One thousand nine hundred and six (1906) Between JOHN G. WENDEL, party of the first part, and WILLIAM H. WALKER, of the City of New York, party of the second part,

WITNESSETH, That the said party of the first part has letten, and by these presents does grant, demise, and to farm let, unto the said party of the second part, that certain lot of land on the south side of West Fifty-first Street, about Four hundred and forty-seven (447) feet Easterly from the Easterly side of Eighth Avenue and extending from thence Westerly twenty-three (23) feet in width and one hundred (100) feet five (5)' inches in depth to the center line of the block and known by Ward Map Number Forty-six (46) in the Twenty-second Ward, in the City of New York.

It is understood and agreed that if the whole or any part of the premises hereby demised shall be taken by any public authority for any public use,

then this lease shall become null and void, and the term hereby granted shall cease from the time when possession of the whole or part so taken shall be required for such public use; but the said tenant, his heirs or assigns, shall not claim or be entitled to any award made for damages for so taking said property or any part thereof for such public use. With the appurtenances, for the term of three (3) years from the fifteenth day of January, One thousand nine hundred and six (1906) at the yearly rent or sum of eight hundred (\$800) dollars, together with the taxes and Croton water rents in each and every year, when due, during said term, as further rent. The yearly rent of eight hundred dollars is to be paid in equal quarter yearly payments in advance, on the fifteenth day of each and every quarter during said term. AND it is agreed that if any rent shall be due and unpaid, or if default shall be made in any of the covenants herein contained, then it shall be lawful for the said party of the first part to re-enter the said premises and to remove all persons therefrom. AND the said party of the second part does covenant to pay to the said party of the first part, the said yearly rent as herein specified. And also yielding and paying therefor unto the said party of the first part, his heirs or assigns, yearly and every year, the amount of money which the party of the first part shall pay for taxes and Croton water rent, whenever imposed upon said premises during the term, as further rent, such payment to the party of the first part to be made immediately after he shall pay such taxes and Croton water rents, and if not so paid the same may be added to the quarter's rent then due. And the party of the second part further covenants and agrees that should a sewer connection be required on or from the premises to the public or street sewer, by the City Authorities, the same shall be made and done at the expense of the party of the second part, it being un-

derstood that at present there are no pipes or connections with Croton water or sewer whatever.

AND further covenants and agrees that if a water meter be required to be set on the premises by the Department of Water Supply, the same shall be set and paid for, as also the water rents assessed by reason of said water meter, by party of the second part at his own expense, without cost or trouble to the party of the first part. AND at the expiration of the said term the said party of the second part will quit and surrender the premises hereby demised, in as good state and condition as reasonable use and wear thereof will permit, damages by the elements excepted. The tenant shall conform to orders of the Bureau of Buildings and shall further freely and promptly execute and fulfill all the ordinances of the City Corporation applicable to said premises and all orders and requirements imposed by the Health Department and the Police Department for the correction, prevention and abatement of nuisances or other grievances in, upon or connected with said premises during said term, at his own expense, without cost or trouble to the landlord. Any expense that the landlord may incur by reason of the failure to fulfill any provision of this clause, shall be added to the quarter's rent then due and collected as further rent.

AND the said party of the first part does covenant that the said party of the second part, on paying the said yearly rent, and performing the covenants aforesaid, shall and may peaceably and quietly have, hold and enjoy the said demised premises for the term aforesaid.

AND it is further stipulated, covenanted and agreed that any structure or structures erected on this lot during the term of this Agreement of lease, shall be removed therefrom prior to the expiration

of the hereby granted term of lease, at the expense of the tenant, without cost or trouble to the landlord, or the owner or owners of the lot.

IN WITNESS WHEREOF the parties hereto and hereunto set their hands and seals this fifteenth day of January, in the year One thousand nine hundred and six.

Witness:                    WILLIAM H. WALKER, (Seal)  
                                  J. G. WENDEL, (Seal)  
                                  W. O. LUDLOW, Agent.

Commissioner MITCHEL—(Showing Exhibit 169 to Commissioner HERTLE) Mr. Commissioner, will you please note the signature appearing upon that lease?

Q. Mr. Ludlow, have you ever visited these premises leased to William H. Walker?

A. Never been inside of them, I have passed them on the sidewalk, that is all.

Q. Have you in passing them on the sidewalk noticed any sign appearing upon them.

A. No, sir.

Q. Have you noticed the character of the business being transacted?

A. No, sir.

Commissioner MITCHEL—That is all, Mr. Ludlow. It is understood you will look at the records and let us know whether there are any such entries as I asked you about.

THOMAS A. TYDINGS, called as a witness, being duly sworn, testified as follows:

*Examined by Commissioner MITCHEL:*

Q. Mr. Tydings, what is your business?

A. Carpenter and builder.

Q. Where is your place of business?



A. 411 Hudson Street.

Q. 411 Hudson Street?

A. Yes, sir.

Q. How long have you been in the building business, Mr. Tydings?

A. Directly, for myself?

Q. In the business generally?

A. Generally, about six years.

Q. How long have you been in the building business for yourself?

A. I should say about two years now or three years. I don't recollect the exact date, two or three years.

Q. How did you begin in the building business, Mr. Tydings?

A. What do you mean by how did I begin?

Q. How did you learn the trade?

A. How did I go into the business?

Q. Yes?

A. Oh, years ago as a journeyman carpenter, then coming in and keeping accounts, keeping time and one thing and another.

Q. By whom were you last employed before beginning business for yourself?

A. Boyce & Lynch.

Q. In what capacity?

A. Bookkeeper, timekeeper, general accountant, estimator, and a little bit of everything.

Q. Where did that firm have its place of business?

A. 49 Christopher Street.

Q. 49 Christopher Street?

A. Yes.

Q. What did it occupy there?

A. A store, ground floor.

Q. Store on the ground floor?

A. Not altogether, part of it.

Q. Who occupied the balance of that store?

A. Star Lamp Company, Florida Sponge Company, and I think the G. F. Walker Soap Company—whether it

was G. F. Walker or not, I don't know whether that was the trade name, I am not sure.

*Q.* Now Mr. Tydings, in what shop were you an apprentice when you first learned the building business?

*A.* Years ago when I was in Knickerbocker's, with William H. Walker, he was a prominent builder in my neighborhood at that time, and I had to go to work and I started for him.

*Q.* To whom do you refer as William H. Walker?

*A.* Mr. William H. Walker.

*Q.* Do you mean the Superintendent of Public Buildings and Offices?

*A.* Yes.

*Q.* You learned the building trade of him?

*A.* I apprenticed under him years ago, I said.

*Q.* Now, who is Mr. Lynch, of that firm?

*A.* Who is he?

*Q.* Yes?

*A.* Why, he was one of the carpenters in the firm.

*Q.* Is that firm still doing business in the City?

*A.* No, sir, they could not make money enough to live.

*Q.* Do you know where Mr. Lynch is at present?

*A.* I don't, I haven't seen him since—oh, I don't know how long, the last I heard of him, I heard he was going out to San Francisco, thought he could make some money out in the building business.

*Q.* Do you know where Mr. Boyce is?

*A.* Boyce is employed by me as my foreman just now.

*Q.* He is employed as your foreman?

*A.* Yes.

*Q.* Did you succeed to the business of Boyce and Lynch?

*A.* Why, they just had to give it up, they were starving. Boyce particularly, he could make more money as a journeyman at \$5 a day than he could make around these public buildings, he decided to throw it up, and I said, "Give me a chance and see if I can make anything." I am pretty near starving at it now.

*Q.* You say Mr. Boyce wasn't able to make any money in attending to the public buildings of the City, is that it?

*A.* No.

*Q.* Was that the business which that firm carried on?

*A.* Some part of it. He was a general carpenter. He would take a job from anybody that he could get it from.

*Q.* What other business did the firm of Boyce & Lynch have while you were employed by them?

*A.* That was the only business.

*Q.* That was the only business?

*A.* Yes, carpenters and builders was the only business.

Do you mean where they did their work?

*Q.* Yes?

*A.* For anybody that would give them a job.

*Q.* Were you employed on any of these jobs by them?

*A.* Yes.

*Q.* Will you name a few of them?

*A.* I don't just recall now, it is so long ago.

*Q.* Were you ever employed by the White Star line?

*A.* Yes, sir.

*Q.* When?

*A.* I should say six or seven years ago.

*Q.* Can you fix the date?

*A.* No, I can't.

*Q.* In what capacity were you employed by the White Star line?

*A.* Checker, clerk.

*Q.* Well, now, Mr. Tydings, weren't you employed by the White Star line about two years ago?

*A.* No, sir.

*Q.* Positive of that?

*A.* Positive of that.

*Q.* Weren't employed by the White Star line during the last five or six years?

*A.* That is my best recollection.

*Q.* You feel quite positive about it?

*A.* I feel quite positive, yes.

Q. Well, how long were you employed by the firm of Boyce & Lynch?

A. Oh, I should say a couple of years.

Q. Two years?

A. About that, I think.

Q. And you say that you cannot recollect any of the jobs on which Boyce & Lynch were employed during your employment by them?

A. I cannot recall them rightly just now.

Q. Well, can you think of a single one, other than on a public building?

A. Yes, there was one stable down there in Morton Street, I believe.

Q. What did they do on that stable?

A. Lowered the floor about 20 inches or 30 inches.

Q. Who owned that stable?

A. Who owned it?

Q. Yes?

A. I do not just recall the name now. I know him as well as I know myself, but I can't just recall his name. I see him every night, too, he is a stableman.

Q. Can't you tell us the number in Morton Street where that stable stands?

A. I cannot.

Q. You cannot remember the address?

A. No.

Q. You cannot remember the owner's name?

A. Fishburn is the name.

Q. Do you know his first name?

A. No, I do not.

Q. Can you tell us approximately where that stable was on Morton Street?

A. No, I cannot just now; just about a block and a half east of Hudson Street.

Q. A block and a half east of Hudson?

A. About that.

Q. What was it you were employed to do on that particular job on Morton Street?

A. To see that the men were there working, taking their time, ordering material and all like that.

Q. You acted as foreman?

A. Yes, supervisor of all the job.

Q. How many days did that job take?

A. I think that took about three weeks.

Q. It was a large job?

A. Yes, sir.

Q. Can you remember any other?

A. No, I don't recall just now, it is so far back.

Q. How large a business did the firm of Boyce & Lynch have?

A. Well, do you mean in a money way?

Q. Yes?

A. I could not tell you that, they kept their business pretty strictly to themselves. What money they got, they kept that to themselves, they didn't let me in on it no how.

Q. Did you know how much work generally they did?

A. As to cost?

Q. No, as to volume of actual physical work?

A. Yes.

Q. Well, how large a business did they have reckoned in that way?

A. The money value?

Q. No, as to employment on a number of buildings and the number of men and jobs—

A. Sometimes they would have ten men and sometimes twenty men on a job.

Q. Constantly employed?

A. Not constantly, no.

Q. Can you remember the names of any of those men?

A. Not just now, no.

Q. Can't remember the name of one?

A. No, they would come and go and get drunk and get sacked, and then they would get a new fellow and he would get drunk and get sacked, and you couldn't keep track of them.

*Q.* Were you foreman during those two years?

*A.* Yes.

*Q.* Didn't you have to keep the time of those men?

*A.* Yes.

*Q.* And you cannot remember the name of a single one?

*A.* No, sir.

*Q.* Well, did Boyce & Lynch keep ten to twenty men constantly employed?

*A.* I should say they did.

*Q.* Well, then they must have had a good deal of business for a carpentry firm, didn't they?

*A.* Pretty brisk, yes, sir.

*Q.* How can you explain the fact that they made such a bad failure if they were so constantly employed?

*A.* I suppose they didn't know how to take care of the money.

*Q.* You mean they threw their money away after they got it?

*A.* Not necessarily, they probably didn't know how to estimate, they tried to get a job and lost money when they finished; mechanics do that.

*Q.* Prices were too low, is that it?

*A.* They would make prices too low, yes.

*Q.* Does this apply to the City work they did?

*A.* Yes, that is what busted them.

*Q.* That is what smashed them?

*A.* Yes, City work.

*Q.* The low prices on City work?

*A.* Yes.

*Q.* Where did the firm of Boyce & Lynch purchase their lumber?

*A.* That I don't recall, I believe Mr. Lynch used to attend to that.

*Q.* Didn't you have anything to do with the purchase of the lumber?

*A.* No.

*Q.* Didn't you have anything to do with receiving the lumber when it was delivered ?

*A.* No, that would go to the job as a rule.

*Q.* Didn't you have anything to do with receiving it at the job ?

*A.* No, I wasn't always on the job, only would drop around during the course of the day.

*Q.* Did you never happen to see the lumber delivered ?

*A.* No, I don't recall that I did.

*Q.* The two years you were foreman of Boyce & Lynch you cannot recollect that you saw any lumber delivered at a job ?

*A.* I may have, I don't recall it just now.

*Q.* You don't know anything about where the lumber was purchased ?

*A.* No, the firm themselves attended to that.

*Q.* Who were the firm again ?

*A.* Boyce & Lynch.

*Q.* What was Mr. Lynch's first name ?

*A.* Michael.

*Q.* What is his middle name ?

*A.* I don't know.

*Q.* What is Boyce's first name ?

*A.* Thomas.

*Q.* What is his middle name ?

*A.* I don't know.

*Q.* Where did they purchase their other supplies, Mr. Tydings ?

*A.* I don't know ; they did the buying themselves.

*Q.* Did you see any of the other supplies delivered ?

*A.* No.

*Q.* Never saw any supplies delivered in the two years you were foreman ?

*A.* No, I would go around and take the time of the men once in a while and see they were on the job.

*Q.* Didn't you have anything to do but taking time ?

*A.* That is about all.

*Q.* Now, you say you were employed by that firm for two years, Mr. Tydings?

*A.* Yes, sir, about that.

*Q.* Was that as long as that firm was in business?

*A.* I believe they were in business before my time.

*Q.* Well, now, do you know whether or not Mr. Lynch was in business for himself before the firm of Boyce & Lynch was formed?

*A.* I do not know, sir; I do not know anything about them previous to my time at all.

*Q.* Immediately previous to the two years that you spent with Boyce & Lynch, where were you?

*A.* I don't just recall where I was. I may have been up at the White Star, I may not; I don't just recall.

*Q.* I thought you said you were not employed by the White Star Line within the last five or six years?

*A.* Well, what was the question you asked me? You said previous to the time I was with Boyce & Lynch.

*Q.* Boyce & Lynch.

*A.* How far previous?

*Q.* Well, immediately previous?

*A.* I don't just recall where I was; I don't know whether I was up at the White Star or not; I scarcely think I was.

*Q.* You cannot say where you were employed immediately previous to your employment by Boyce & Lynch?

*A.* No, sir.

*Q.* No recollection of that?

*A.* No, sir.

*Q.* Were you in New York?

*A.* I am not quite sure of that.

*Q.* You are not quite sure you were in the City of New York?

*A.* No.

*Q.* Where have you lived besides the City of New York?

*A.* Lived in hotels in Philadelphia and Washington, hopping around.



*Q.* Within how many years have you been in Washington and Philadelphia in hotels?

*A.* About five years or so, six.

*Q.* What hotels in Philadelphia, for instance?

*A.* I don't recall the hotels.

*Q.* Can't remember? What hotels in Washington?

*A.* I can't recall. It is quite a while ago.

MR. BROWNE—Pardon me one moment. I assume I have no right to interpose any objection—

Commissioner MITCHEL—None.

MR. BROWNE (continuing)—in view of your ruling, but will it be understood on the record that I object to all these questions, upon the ground that they are immaterial and irrelevant and have absolutely no bearing upon this inquiry.

Commissioner MITCHEL—The stenographer is instructed to note that Mr. Browne, counsel for the witness and for the witness McCleery and for the witness Blake, interposes this objection to each question as asked, no matter what the question is.

MR. BROWNE—And takes an exception to the Commissioners' ruling in allowing it.

Commissioner MITCHEL—The exception is noted. I ask you, Mr. Browne, whether you appear here only for these three witnesses?

MR. BROWNE—Only for these three witnesses, the witness on the stand, Mr. McCleery and Mr. Blake.

Commissioner MITCHEL—For no other persons?

MR. BROWNE—For no other persons.

*Q.* Now, Mr. Tydings, you say that you lived in hotels in Philadelphia and Washington about five or six years

ago. Did you live in those hotels while you were employed by the White Star Line as checker?

A. No.

Q. Well, will you explain how you could live in Washington and Philadelphia while you were employed by the White Star Line?

A. I cannot explain how I could do it, no, that is a physical impossibility, to be here in New York working for the White Star and living in a hotel in Philadelphia.

Q. Have you had occasion to travel much?

A. Just for enjoyment, that is all; I like traveling as a rule.

Q. Now, you said that five or six years ago you were employed by the White Star Line, that five or six years ago you were in Washington and Philadelphia, and that immediately prior to your employment by Boyce & Lynch you do not know where you were. Can't you make that any more definite?

A. No, I cannot recall, sir.

Q. Were you in the carpentry or building business just before your employment by Boyce & Lynch?

A. That I don't recall.

Q. Can you tell us just when your employment by Boyce & Lynch began, Mr. Tydings?

A. No, I cannot, sir.

Q. Was it in the year 1904?

A. That I cannot say.

Q. Was it 1905?

A. It may have been; it is in that neighborhood; I don't just recall those things.

Q. But it was during their occupation of 49 Christopher Street, is that right?

A. They were there a portion of the time, yes.

Q. Where were they for the rest of the time?

A. I don't know where they were.

Q. Were they at 49 Christopher Street during the entire time of your employment by them?

A. During my time, oh, yes.

*Q.* Through your entire two years?

*A.* Yes.

*Q.* Well, now, is the last thing you remember about your own employment before the Boyce & Lynch employment that you were employed by the White Star Line as checker, is that the last thing you can remember?

*A.* That is the last I recall; yes, I think that was it.

*Q.* What you did between the employment by the White Star Line and by Boyce & Lynch you have entirely forgotten?

*A.* Yes.

*Q.* Do you think it was during that time you were down in Washington and Philadelphia?

*A.* I think it was during those periods I hopped around.

*Q.* And you were just down there for amusement?

*A.* That is all, that is all.

*Q.* You say your place of business is 411 Hudson Street?

*A.* Yes, sir.

*Q.* How long has it been there?

*A.* About six months, I should judge.

*Q.* Six months at 411 Hudson Street?

*A.* Yes.

*Q.* Where was it prior to the six months that you have just mentioned?

*A.* I was for a short while at 218 West Fifty-first Street.

*Q.* What place is that?

*A.* That is a lumber yard.

*Q.* Whose lumber yard?

*A.* Walker Brothers.

*Q.* Who are Walker Brothers?

*A.* Who are Walker Brothers?

*Q.* Yes?

*A.* Why, they are Walker Brothers.

*Q.* What are their names?

*A.* James Walker and George F. Walker.

*Q.* Do you know whose sons they are?

*A.* I believe so.

*Q.* Whose sons are they?

*A.* William H. Walker's.

*Q.* Do you mean William H. Walker, the Superintendent of Public Buildings and Offices?

*A.* Yes, sir.

*Q.* Your place of business was in their lumber yard?

*A.* I had desk room in their office.

*Q.* You had desk room there?

*A.* Yes, sir.

*Q.* Mr. Tydings, were you ever manager of the Walker Brothers lumber yard?

*A.* No, sir.

*Q.* Did you ever say you were?

*A.* No, sir.

*Q.* Did you ever report to a representative of Dun's Agency that you were manager for Walker Brothers lumber yard?

*A.* No, sir.

*Q.* You are quite positive of that?

*A.* Real positive of it.

*Q.* You are willing to stand by your statement?

*A.* If I said it, it is not so. I do not think I ever said any such thing, because it is not so.

*Q.* If you did say it, it was not so?

*A.* It was not so.

*Q.* You cannot account for how you came to say it, can you?

*A.* I don't believe I ever did say so.

*Q.* Did you ever say it to a representative of Bradstreet's?

*A.* Not to my knowledge, no, sir.

*Q.* If you did, it was not true?

*A.* It was not so.

*Q.* Mr. Tydings, how many men do you employ in your business at present?

*A.* Oh, from six to ten.

*Q.* Constantly?

*A.* Yes.

*Q.* Did you employ six to ten men ever since you have been in business for yourself?

*A.* Yes.

*Q.* What is the character of the business you do?

*A.* Repairing on the public buildings, as a rule, and any other jobs I find.

*Q.* What public buildings do you mean?

*A.* City of New York.

*Q.* In the Borough of Manhattan?

*A.* Borough of Manhattan, yes, sir.

*Q.* Any other Borough?

*A.* No.

*Q.* What other business do you do?

*A.* Well, anything I can pick up in the line.

*Q.* In what line?

*A.* Carpentry line.

*Q.* Well, what other carpentry business do you do?

*A.* Nothing at present.

*Q.* When did you last have any carpentry job other than on a public building?

*A.* That I do not recall just now.

*Q.* Did you ever have one?

*A.* I believe I did.

*Q.* What?

*A.* I believe I did, yes.

*Q.* You think you did, but you are not sure, is that right?

*A.* I believe I did, yes, sir, but I don't just recall it now.

*Q.* Have you had many?

*A.* No, not very many.

*Q.* Very few?

*A.* Very few.

*Q.* What is the volume of the business you do on the public buildings and offices of this Borough?

*A.* Oh, about, I should say, \$600 some months, a little

more other months; it is according how things get smashed up.

*Q.* What is the total volume of the orders in dollars that you received for work on public buildings and offices of this Borough in the year 1906?

*A.* That I do not recall.

*Q.* Approximately?

*A.* Oh, I imagine probably it would estimate about nine to ten hundred dollars a month.

*Q.* When did you begin business for yourself?

*A.* I think it was 1906.

*Q.* In 1906?

*A.* I think so.

*Q.* What time?

*A.* In January, I believe.

*Q.* January, 1906, the first of the year?

*A.* I believe so.

*Q.* Now, throughout the year 1906 you received these orders, did you not?

*A.* Which orders?

*Q.* I mean orders for repairs to public buildings and offices of this City?

*A.* Yes, sir.

*Q.* You say you received from about six to ten hundred dollars a month throughout 1906, is that right?

*A.* I should say it was that much; I haven't the figures in my head just now.

*Q.* You could not tell us more closely than that the total volume of orders you received?

*A.* I will have to refer to my bills.

*Q.* Do you keep books of account?

*A.* Yes, sir.

*Q.* What kind of books of account do you keep in your business?

*A.* Job book, ledger and journal.

*Q.* Who keeps them?

*A.* I keep them myself.

*Q.* Have you any assistant to keep those books?

A. No.

Q. They are kept by yourself alone?

A. Kept by myself. The volume isn't large enough to employ anybody to keep books.

Q. Well, now, haven't you got practically the same volume of business that Boyce & Lynch had?

A. I don't know; I don't know the volume that Boyce & Lynch had; I can't compare them.

Q. You cannot gauge that at all?

A. Every month isn't the same, you know; some months will require more repairs than others.

Q. Did Boyce & Lynch have a bookkeeper?

A. I did most of that for them.

Q. You did their bookkeeping?

A. Yes.

Q. But you cannot recollect the volume of their business?

A. It is too far back now.

Q. Can't even tell how it compares with the volume of your own business?

A. No.

Q. Can you tell us whether you got \$5,000 of orders in 1906, \$10,000 or \$15,000?

A. I have not got those figures in my head; I can't carry that kind of stuff around; that is why I keep books, so I don't have to keep that in here (indicating head).

Q. Couldn't you come even as close as that?

A. What is the use of coming close, if you want it accurate. I estimate about \$1,000 a month.

Q. You have books showing all that, haven't you?

A. Yes.

Q. I am going to ask you to bring those books here, Mr. Tydings, and submit them to the examination of this Commission at 2 o'clock. Can you have them here?

A. I would rather you give me some other day. I have business to attend to. You have taken half my day

now, and I haven't got money enough to spare my time with you; time is money with me.

*Q.* The Commission cannot extend the time beyond 2 o'clock to-day?

*A.* Can't you wait until to-morrow morning?

*Q.* I am afraid not.

*A.* I have been courteous enough to come here and miss half a day.

Mr. BROWNE—I think the request of the witness is reasonable, and I apply for the adjournment now on the ground that I will be engaged before the Appellate Term at 2 o'clock, and I therefore ask that the examination of the witness be adjourned until to-morrow morning. This gentleman is taken away from his business, he has appeared here and is perfectly willing to submit to your examination, but it will be quite a hardship to force him to return at 2 o'clock, when to-morrow morning at half past ten would answer.

Commissioner MITCHEL—I regret that it may be necessary to put both counsel and witness to inconvenience, but I think the public interest in this case demands those books to be produced here this afternoon at 2 o'clock.

Mr. BROWNE—The witness was only served at half past seven this morning.

Commissioner MITCHEL—Quite true. There were two process servers trying to serve the witness yesterday.

Mr. BROWNE—We were not aware of any efforts to subpoena him, otherwise we would have appeared without subpoena.

*Q.* You say you employ six to ten men constantly?

*A.* Yes.



*Q.* Please give us the names of the men whom you have in your employ at the present time?

*A.* Boyce, Shea, Bergen, Little, Moynahan, Riley, Smith; I believe that is all.

*Q.* Have you kept accounts of their wages and employment throughout the conduct of your business?

*A.* Kept a time book.

*Q.* Have you kept books of account?

*A.* Kept a weekly time book.

*Q.* Have you kept that kind of a book ever since you have been in business for yourself?

*A.* No, I haven't it that far back.

*Q.* How far back have you got it?

*A.* About a month or two, I guess.

*Q.* You have nothing back of a month or two showing the time or the payments to these men?

*A.* No, sir.

*Q.* Why not?

*A.* I didn't think it was necessary.

*Q.* Why do you think it is necessary now?

*A.* Well, I got to know at the end of the week how much I have to pay them.

*Q.* Didn't you have to know that before?

*A.* Yes, but I didn't have to keep it two months or five months; I kept it for a week.

*Q.* You kept it and destroyed it?

*A.* Yes, kept it for a week, to know how much was coming to them, and they got the money, and the rest was coming to myself.

*Q.* You say up to six months your place of business was at 218 West Fifty-first Street?

*A.* Yes, sir.

*Q.* How long was that your place of business?

*A.* I think three or four months.

*Q.* Where were you prior to that?

*A.* I was at 411 Hudson Street.

*Q.* At 411 Hudson Street?

*A.* I was at 411 Hudson Street twice.

*Q.* You were at 411 Hudson Street before you were at 218 West Fifty-first Street?

*A.* As I recollect it now, yes.

*Q.* Now, you were at 218 West Fifty-first Street for the three months ending about six months ago, is that right?

*A.* About that, yes.

*Q.* How long were you at 411 Hudson Street before those three months?

*A.* I don't just recall that.

*Q.* Well, was that the only place where you were from the 1st of January, 1906, when you began business for yourself?

*A.* Yes, as far as I recollect.

*Q.* You were not at 218 West Fifty-first Street at any time, except during the three months that you have just described now, ending six months ago, is that right?

*A.* About that time.

*Q.* That is the only time you were there?

*A.* Yes; I had some office space there.

*Q.* When you had your place of business at these various addresses, your mail was sent there, of course, wasn't it?

*A.* My what?

*Q.* Your mail was sent there, was it not?

*A.* Yes.

*Q.* Your billheads were made out at the address at which you were?

*A.* At which I was stopping, yes.

*Q.* You say 411 Hudson Street, 218 West Fifty-first Street and then later 411 Hudson Street are the only addresses at which you have been in business for yourself?

*A.* As far as I recollect, yes, sir.

*Q.* Were you ever in business for yourself at 49 Christopher Street?

*A.* I don't recall whether it was in Boyce & Lynch's time or whether I did it a short time of my own there; I don't think so; I don't think I really was in business there.

*Q.* Your business relations while at Boyce & Lynch's are more or less confused, are they?

*A.* I was their bookkeeper, but when they decided to go out after they were pretty near starved, they left a box of tools there, and I bought them, and whether I moved from there to 411 Hudson Street directly or whether I stayed there a month, I don't just recollect.

*Q.* It might have been that you were there for a while?

*A.* I might have been there for a short time.

*Q.* It was about the 1st of November that you moved down to 411 Hudson Street, wasn't it, last?

*A.* The last moving?

*Q.* Yes, six months ago?

*A.* I should say it was about that, yes.

*Q.* Then, during August, September and October you were up at 218 West Fifty-first Street?

*A.* I think so.

*Q.* Before that you were down at 411 Hudson Street?

*A.* Either there, probably, or maybe a short while at 49 Christopher Street, I don't just recall.

*Q.* But the one thing you are sure about is that you were up at 218 West Fifty-first Street during those three months?

*A.* It may be four months; it may be two months.

*Q.* Not more than four and not less than two?

*A.* I hardly think so.

*Q.* Well, now, do you think you could have been there in April, 1906?

*A.* Been where?

*Q.* 218 West Fifty-first Street?

*A.* I may have been; I am not quite sure of those months; I may have been.

*Q.* Now, April is quite a long time before August, isn't it, and you say you were there only three months?

*A.* I don't confine myself strictly to three months; I am telling you I am not quite sure about the number of months; it may have been four, it may have been two; I was there only a short while. I put the building up and

stayed there for a short while after the building was up, probably a couple of months, to see if there was any business up there.

*Q.* Who did you put the building up for?

*A.* Walker Brothers.

*Q.* While you were in business for yourself?

*A.* I was in business for myself.

*Q.* What did they pay you for putting that building up?

*A.* I don't just recall now.

*Q.* Well, will that appear in your books of accounts?

*A.* Not in the books I have now, no, sir.

*Q.* Why not?

*A.* Because the books previous to last January, I had no more use for them, I balanced up at the end of the year and found out I just had a balance, carried it over into a new set of books.

*Q.* So all the books you had up to the 1st of January last year you destroyed?

*A.* Yes, they were only taking up office room.

*Q.* You got rid of all your books on January 1st up to that time?

*A.* All books that applied to any work done previous to that time. I started off a new year with a new balance.

*Q.* You have no accounts to show what Boyce & Lynch paid you for building that building at 218 West Fifty-first Street—what Walker Brothers paid you?

*A.* I do not recall just what it was.

*Q.* Mr. Tydings, is it possible that you were at 218 West Fifty-first Street in the beginning of April, 1906?

*A.* Oh, it is possible, yes.

*Q.* Is it possible that you had your office there for as long as six months?

*A.* It is possible, yes, or then again I may have had some of the old billheads, after I did move from 218 I probably had some old billheads I carried on to 411, and maybe used up some of those billheads, I don't just recall.

Q. Is it possible that you were at 218 West Fifty-first Street from April 1st down to January 1st of this year—from April 1st, 1906, down to January 1st of this year?

A. Oh, yes, it is possible.

Q. Then, it is possible that you have only been at 411 Hudson Street for four months, isn't it?

A. Probably; I didn't keep very close track; I say about that.

Q. Then, you might have been at Hudson Street four months and at 218 West Fifty-first Street nine months, instead of six months at Hudson Street and three months at Fifty-first Street, is that so?

A. I might have; I say I can't confine myself to figures. If you have bills there, probably those bills will tell you.

Q. You cannot remember about your own tenancy of offices any more closely than that, three months or nine months?

A. Not at this late day, no.

Q. That is not so long ago, 1906?

A. Well, it is a long while to remember those little small things.

Q. Such as how many months you were in an office?

A. Who the devil supposed I was going to be asked these questions a year after I left the place. If I knew I was going to be asked I would refresh my memory.

Q. Do you make out your own bills now?

A. Yes, sir.

Q. Did you make out Boyce & Lynch's bills while you were employed by them?

A. Yes, I was their bookkeeper.

Q. I show you voucher No. 18,306, Series A of Manhattan, showing your bill to the City on the second page and ask you if that bill is made out in your handwriting?

A. Yes, that is my handwriting.

Q. Is the address at the top of the bill in your handwriting?

A. 218 West Fifty-first Street?

Q. That is in your handwriting?

A. Yes.

The voucher was admitted in evidence and marked Exhibit No. 170, May 8th, 1907, C. B.

Q. I show you voucher No. 2,099, Series A, Manhattan, 1905, and ask you if the bill on the second page of that is in your handwriting, Mr. Tydings?

A. That is not my handwriting.

Q. Did anybody except the bookkeeper make out Boyce & Lynch's bills?

A. Probably they would make them out themselves once in a while.

Q. But you made out most of them, didn't you?

A. Most of them, yes.

Q. I show you voucher 24,574 A, Manhattan, 1905, and ask if the bill is in your handwriting?

A. Yes, that is my handwriting?

The voucher was admitted in evidence and marked Exhibit No. 171, May 8th, 1907, C. B.

Q. I show you voucher 50,181, A, Manhattan, 1904. Is that in your handwriting?

A. No, sir.

Q. This Exhibit No. 171, voucher No. 24,574, A, Manhattan, 1905, you have identified as in your handwriting?

A. Yes, sir.

Q. This bears date January 5th, 1905. You must have been in the employ of Boyce & Lynch at that time?

A. Yes.

Q. You cannot remember though whether you were employed by that firm in 1904, is that right?

A. I do not recall back that far, I do not recall just where I was at that time.

Q. Now Mr. Tydings, you say that you have got books of account since January 1st, 1906, in your business?

A. Yes, sir.

Q. Those are the only books of account you have?

A. That is all, sir.

Q. What is your bank, Mr. Tydings?

A. Greenwich.

Q. Greenwich Bank?

A. Yes.

Q. How long have you banked there?

A. About three months or so.

Q. About three months?

A. Three or four months.

Q. What was your bank before that?

A. I didn't have any bank. I didn't make enough money to get a bank account.

Q. What?

A. I didn't make enough money to get a bank account.

Q. Well, do you think receipts amounting to \$10,000 a year are not enough to justify a bank account?

A. Not if you spend pretty fast, no.

Q. Well, when you did work for the City you were paid by voucher, weren't you—by warrant?

A. Yes, by warrant.

Q. Of the Chamberlain?

A. Yes.

Q. How did you cash that warrant?

A. A friend of mine cashed it for me.

Q. A friend of yours. Who is that friend?

A. James McCleery. I used to borrow during the course of the month off him, enough to amount to the check to carry me through.

Q. Then, up to three months ago, when you opened an account in the Greenwich Bank, Mr. McCleery cashed all your warrants, is that so?

A. Yes.

Q. All of them?

A. I believe all of them, I don't recollect cashing with anybody else.

Q. Mr. Tydings, where do you buy your materials for your work?

A. Lumber, you mean?

*Q.* Yes?

*A.* John Egan.

*Q.* John Egan?

*A.* Yes.

*Q.* Now, where is Mr. John Egan's place of business?

*A.* West Twenty-fourth Street.

*Q.* West Twenty-fourth Street?

*A.* Yes.

*Q.* Do you know the number?

*A.* I don't know the number.

*Q.* How long have you bought your lumber from him?

*A.* Oh, since I have been in the business.

*Q.* Since January 1st, 1906?

*A.* Yes.

*Q.* Now, when that lumber is shipped to you, is it invoiced?

*A.* No, they send the lumber down to the job. If I want lumber, they send it down to the job and send a bill, send the bill immediately for payment.

*Q.* How were you in the habit of paying John Egan?

*A.* Cash. I would order a thousand feet and go and pay him for it.

*Q.* Of course you have his receipts of payment?

*A.* I don't know whether I have or not.

*Q.* Did you keep receipts?

*A.* For a short time.

*Q.* For a short time?

*A.* Yes.

*Q.* How long do you keep your receipts?

*A.* Sometimes a month.

*Q.* You have no receipts for your payments for any material back of one month ago?

*A.* I don't think so, I don't know as I have any receipts.

*Q.* You don't know that you have any receipts?

*A.* No.

*Q.* You could not produce here then any receipts of John Egan for the lumber sold you?



A. Not until I go and look, I am not sure whether they are up there or not.

Q. Could you produce any back in 1906?

A. No, sir.

Q. Positive about that?

A. Pretty positive.

Q. Where did you buy your other material, Mr. Tydings?

A. Hardware, and so forth?

Q. Yes?

A. Wherever the job would be; for instance, around here I would go over here on Warren Street

Q. Warren Street?

A. Warren Street.

Q. What place over here in Warren Street?

A. Neal & Brinker, I think is the name, down on Warren Street, I don't know as they know me, I go in the same as you would, buy a couple of hinges or whatever is necessary and pay for them and walk out, don't carry any account as a rule.

Q. Aren't the jobs on the public buildings you are called on to do of such an extent that they need a large quantity of nails and such other materials?

A. Very seldom, a little patching around probably, shelving is the principal thing, pigeon hole cases.

Q. (Showing paper) Here is a bill which you rendered to the City on November 2d, 1906, amounting to \$689, which reads repairing doors, windows, benches, halls, card desks, and flooring in Madison Street Court House, Second District, with a long list of items, including twenty pounds of nails. Where did you buy the twenty pounds of nails, for instance?

A. I cannot tell you that, I cannot say as to that, probably some hardware place around in that neighborhood.

Q. Don't you consider twenty pounds of nails a fairly large amount to buy?

A. No.

*Q.* You would not walk into the store and walk away with twenty pounds of nails in your pocket?

*A.* Not in your pocket, in a package.

*Q.* For repairing floors in same bill, clothes closets, windows, erecting record cases, in Essex Market Police Court, a great many items, including one of twenty pounds of nails. Now here is one in the same bill, for repairing doors and windows, partitions, desks, record cases, and flooring in Criminal Court Building, an item of thirty pounds of nails. Did you walk off with thirty pounds of nails in this same way?

*A.* A little slower, but got away with them.

*Q.* What?

*A.* Go a little slower than with the twenty-pound package, but I could handle them.

*Q.* Did you ever have any material delivered at your shop or store?

*A.* No.

*Q.* You never had?

*A.* Usually on the job. I have just got office room, I have no shop, don't do much shop work, my work is at the job.

*Q.* You never have anything delivered then at your place of business.

*A.* Very seldom.

*Q.* All on the job?

*A.* All on the jobs.

*Q.* Have you ever had any place assigned to you in the County Court House?

*A.* I have a little desk, odds and ends of lumber in the carpenter shop there, it is not assigned distinctly to me, it is the carpenter shop.

*Q.* Whose carpenter shop is that?

*A.* I believe that belongs to the City.

*Q.* Who is in charge of the shop?

*A.* I don't know the man's name.

*Q.* Who gave you permission to put those odds and ends in that shop, Mr. Tydings?

A. I don't know as I got any special permission, but it was so small an amount, and usually I was there from time to time, if I put it up where the job was upstairs it would probably be in somebody's way, so when I got the material, I put it in there, I was entitled to put it in the building, because I was working there, I thought the carpenter shop was the best place.

Q. Nobody told you to put it there?

A. I got orders to do the job, and naturally I got authority to put lumber in there.

Q. How long have you stored these odds and ends in the County Court House?

A. Whenever I would have a job there.

Q. Have you any there now?

A. Not just now, I don't think so.

Q. Nothing there?

A. I don't think so.

Q. Since January 1st, 1906, have you up to a short time ago continuously had material there?

A. What sir?

Q. Did you have material stored in the County Court House continuously?

A. Yes, I would have some boards there nearly all the time. There is always some work in that building, as a rule, on account of this subway, it has got that place all twisted up.

Q. You say you have work in that building constantly every month?

A. Pretty generally every month.

Q. Do you ever take material that you store in the County Court House for use on a job outside of the County Court House?

A. Are you talking about the County Court House or the Criminal Court House?

Q. The County Court House, the Court House of the Supreme Court.

A. I haven't anything in the County Court House.

Q. What have you been referring to?

A. I was thinking of the Criminal Court House in Centre Street.

Q. You have nothing in the basement of the County Court House?

A. No, sir.

Q. Never have had?

A. There may have been some there when I was doing a job there on the Judge's chambers, I may have had some material down there at that time, that is some four or five months ago. I seldom have any in the County Court House, because there is seldom work there for me, except by special order.

Q. You say Mr. Boyce is your foreman?

A. My foreman.

Q. Has your foreman ever done any shop work in the County Court House for you?

A. When he was working on the contract in the Judge's chambers I guess he had occasion to go down there and use the vise or bench down there.

Q. When was that?

A. That job was done three or four months ago, these new Judge's chambers on the first floor I guess we had to use their bench occasionally downstairs.

Q. You think that is about the only time he was so employed?

A. There may have been others. If at any time I had occasion and they wanted to use a bench, there is no use building a bench upstairs in the court room, go downstairs and shape your stuff there and bring it upstairs.

Q. You say you stored a certain amount of material in what you called the carpenter shop in the Criminal Court Building?

A. Yes, there might be a little there, if I am working there.

Q. And you have been pretty continuously employed on that building since January 1st, 1906, is that right?

A. In the Criminal Court Building.

*Q.* Do you pay cash for all the materials you purchase, just as you said you did for lumber?

*A.* Yes, sir.

*Q.* Never paid by check?

*A.* No.

*Q.* Don't now?

*A.* Cash.

*Q.* At the present time just as heretofore?

*A.* Yes, sir.

*Q.* Sure of that?

*A.* Yes, sir.

*Q.* Have you ever bought lumber from anybody except John Egan?

*A.* Not to my knowledge, not lately, at any rate.

*Q.* Did you ever buy any of your hardware from the Metropolitan Equipment & Supply Company?

*A.* No.

*Q.* Never have?

*A.* Unless these folks on Warren Street are in that concern, I don't know.

*Q.* What is the name of that firm on Warren Street, again?

*A.* Neal & Brinker, I believe it is.

*Q.* Mr. Tydings, I find here in voucher No. 8,181, 1907, Series A of Manhattan, under date of February 5th, 1907, a bill which you rendered for work done in the offices of the Bureau of Buildings. What kind of work was that?

*A.* Was that the Bureau of Buildings in Eighteenth Street?

*Q.* The bill does not say. That is what I want to know?

*A.* Bureau of Buildings, I guess that is the Commissioner of Buildings up in Eighteenth Street.

*Q.* Did you have work there?

*A.* Yes, we did some partition and closet work there on the sixth and seventh floors, I believe. That is Eighteenth Street and Fourth Avenue, I think.

*Q.* Were you personally in charge of that work?

*A.* Not constantly, dropped around; my foreman usually takes care of the job.

*Q.* That is Mr. Boyce?

*A.* Mr. Boyce, if he is on the job, yes.

*Q.* How many foremen have you got?

*A.* I don't call them all foremen. If I have a job or two I put the other fellow on the job to see the others do the work, but Mr. Boyce is the general foreman.

*Q.* Now this bill also shows work done on the Fifty-fourth Street part. Do you remember what that work was?

*A.* I believe that was putting up some doors there for the janitor on the top floor; I think we fixed some window and flooring there, desks, I think.

*Q.* Do you remember whether you did any work in the Criminal Court Building at that time?

*A.* Well, doing work in the Criminal Court Building pretty near every month.

*Q.* Can you recollect what that particular work was?

*A.* What month was that?

*Q.* In the bill of February 5th, 1907?

*A.* You are taking me pretty far back for a detail like that; I think it was shelving, window and doors. There are constantly pigeon holes going in that place, and fixing desks.

*Q.* You say you make out all your own bills?

*A.* Yes.

*Q.* How do you compute the amount of your bills, Mr. Tydings?

*A.* I make fifty cents a dollar on a man.

*Q.* Well, then, you make up your bills from time books, is that right?

*A.* Yes, I keep the time for the week. I charge the City \$5.30 for a man, and I pay the prevailing rate of wages, which is \$4.80; the City compels me to do that; it is a law, and I make fifty cents on a mechanic.

*Q.* For the rest of your bill, for material, how do you make that up, from what records?

*A.* I add on about half a cent a foot, that I make on the timber.

*Q.* You must keep a record of that timber, don't you?

*A.* For the job, yes, job book.

*Q.* What kind of accounts do you keep those records in?

*A.* Put it down in a ledger, what we call a job book, of the material I send to the job and what I pay for it. I should say I make about five to ten per cent. on the whole bill.

*Q.* How far back do those ledgers run?

*A.* Oh, three or four months probably, probably six months.

*Q.* Run back past the 1st of January, 1907?

*A.* They may, I am not quite sure.

*Q.* Then you have some records prior to the 1st of January, 1907, haven't you?

*A.* Prior to 1907, I guess there is some up there.

*Q.* Up where?

*A.* At my office.

*Q.* What?

*A.* At my office.

*Q.* Do you mean at 411 Hudson Street?

*A.* Yes, sir.

*Q.* Can you tell us from your recollection what work it was that you did for which you rendered a bill on April 2d, 1907? Do you remember what buildings that covered?

*A.* I don't just recall now very distinctly.

*Q.* Well, do you remember what you did in the First District Court which you charged for in that bill?

*A.* The First District Court, we fixed up a lot of windows there; they wanted cords put in, and fixing doors, fixing floors; it was principally windows, I believe.

*Q.* Do you remember what you did in the Second District Court that month?

*A.* I believe that is the month we sent some packing

cases over there, and some desks and flooring; I am not quite sure whether we sent some packing cases over that month or the month previous; I think it was that month, though.

*Q.* Do you know what you did in the Corporation Counsel's old office that month?

*A.* We took down some rolling ladders there, moving them from their old building, I believe they put it in the County Court House.

*Q.* Do you remember what you did in the Harlem Court?

*A.* I think that was windows—the windows went in as a special, I had a special for the Harlem Court, there was a fire there, I think that was flooring, pigeon hole cases and shelving and probably doors.

*Q.* Do you remember what you did in the Criminal Court Building that month?

*A.* It was pigeon hole cases, doors, shelving.

*Q.* Mr. Tydings, you don't bid on these orders, do you?

*A.* I give them an approximate price, about how much it would cost, but you can't very well bid on those small jobs.

*Q.* Do you make an estimate in advance before you get the order?

*A.* I tell Mr. Walker about how much I think those things would cost, approximate price; as a rule you can't bid on them. When you get up there the men go to work at 8 o'clock, the Judge comes in at ten, and all hands get out and stay out until one, and then come in from one until two, and then stay out, and you can't estimate those small jobs in a court.

*Q.* Do you tell him that verbally or in writing?

*A.* I tell that to him.

*Q.* Do you ever submit a written estimate?

*A.* No, I wouldn't submit a written estimate, because they may probably hold me to it and I would probably lose money and you can't compute time in those courts at all.



*Q.* But you always make a verbal estimate before you get an order, don't you?

*A.* Yes, if he tells me the amount of work and what is necessary up there, I can give him an approximate estimate, but if I don't know what is to be done until I get up there, I can't give him an estimate.

*Q.* Can you go up there and make an estimate and come back and report.

*A.* Yes, sometimes I would, and sometimes he knows just what is to be done there.

*Q.* What do you do in that case?

*A.* What case?

*Q.* When you know just what is to be done?

*A.* Give an approximate of what it is to cost, and if I am too high I don't get the job.

*Q.* Verbally?

*A.* Yes.

*Q.* Has there been any month since January, 1906, when you did not get a general order?

*A.* I don't think there was.

*Q.* You don't think so?

*A.* I don't think so.

*Q.* Then you usually get the order?

*A.* Because they like my price and like my work, I guess.

Commissioner MITCHEL: If we adjourn until 2:30, can't you have those accounts here?

The WITNESS: I can at a great inconvenience. I wish you would let me go until to-morrow morning, I have an appointment to keep.

MR. BROWN: You will probably be able to conclude Mr. Tyding's testimony this afternoon, won't you?

Commissioner MITCHEL: Yes. I will adjourn his examination until 2.30 P. M.

At this point a recess was taken until 2 P. M.

New York, May 8th, 1907.

After Recess:

OTTO H. KLEIN, recalled for further examination, testified as follows:

*Examined* by Commissioner MITCHEL:

Q. (Handing paper) Mr. Klein, I show you Exhibit No. 169, read in evidence this morning, which is the lease dated the 15th day of January by John G. Wendel to William H. Walker. Did you examine the description of the premises named in that lease?

A. I did.

Q. Did you make an examination of the City's tax maps to ascertain the street number of the premises described in the lease?

A. I did.

Q. What did you find the street number of the premises described in that lease to be?

A. I found that this lot has no house on, and consequently no house number attached to it, but the house number, the right number of 218 West Fifty-first Street.

Q. Is what?

A. 218

Q. And the City tax maps do not show any tax on those premises?

A. No, sir.

Q. Is that right?

A. That is right.

Q. But you are positive about the street number?

A. I am positive about the street number.

WILLIAM O. LUDLOW, recalled for further examination, testified as follows:

*Examined* by Commissioner MITCHEL:

Q. Mr. Ludlow, have you examined the accounts in Mr. Wendel's office to ascertain whether the rent paid by

the tenant Walker or the premises described in this exhibit No. 169 was paid by check or in cash?

A. By check.

Q. You found that it was paid by check?

A. Yes.

Q. In all cases, Mr. Ludlow?

A. In all cases.

EDWIN WOODCOCK, recalled for further examination, testified as follows:

*Examined* by Commissioner MITCHEL:

Q. Mr. Woodcock, since this morning's session have you examined your office records and books of account?

A. Yes, sir.

Q. Do you find that they have a record of the full name of the tenant Walker who occupied 49 Christopher Street?

A. No, sir.

Q. Do you find as tenant of that store at any time during the years of 1904, 1905 and 1906 any person except a man named Walker?

A. No, sir.

Q. Do your books show as a tenant of any part of the premises 49 Christopher Street Michael H. Lynch in the years 1904, 1905 or 1906?

A. No, sir.

Q. Do they show either Michael H. Lynch, Thomas H. Boyce or the firm of Boyce & Lynch as tenants of any part of those premises?

A. No, sir.

Q. Do they show a Thomas A. Tydings as tenant of any part of those premises at any time?

A. No, sir.

Q. Do they show whether the payments made by the tenant Walker were made by check or in cash?

A. Sometimes by check and sometimes by cash.

Q. Sometimes they were made by check and sometimes by cash?

A. Yes, sir, sometimes by check and sometimes by cash.

Q. Can you say where those checks were deposited?

A. New York County National Bank, corner of Fourteenth Street and Eighth Avenue.

Commissioner MITCHEL—That is all, Mr. Woodcock.

THOMAS A. TYDINGS, recalled for further examination, testified as follows:

By Commissioner MITCHEL:

Q. Mr. Tydings, have you examined to see what books of account and other records of your business you have?

A. Yes, sir I have brought some books down.

Q. Have you brought those books with you?

A. Yes, sir.

Q. Are those the only books which you have showing the accounts of your business?

A. Yes, sir.

Q. Mr. Tydings, what accounts are shown by those books?

A. They show what bills I sent to the City and what money I received and what money I paid out.

Q. When you say what money you paid out do you mean for supplies?

A. Labor, material and general supplies, whatever I need in my business.

Q. Do those books show the names of the firms to whom you made payments for materials?

A. Yes, sir.

Q. Do they show the names of the laborers to whom you made payments?

A. No, I charged that up against pay-roll.

Q. Against pay-roll?

A. Yes.

Q. Did you charge up your pay-rolls as a total?

A. As a total at the end of the week, yes, sir.

Q. Well, what payments other than for materials are shown on those books as made by you?

A. That is all, pay-rolls and materials.

*Q.* Pay-rolls and materials?

*A.* Yes, sir.

*Q.* How far back do those books run?

*A.* 1907.

*Q.* Just during 1907?

*A.* Yes, sir, January 22nd I started this book, I opened this book in January 1907.

*Q.* January 22nd?

*A.* Yes, sir, that is the first account I see in here.

*Q.* Are all three books of the same kind?

*A.* No, this is a job book, as I go along with a job I note how much material I send this building and to that building, and so I keep the buildings separate so that I can render a bill separate for each building at the end of the month.

*Q.* And what is the third book?

*A.* This third book is the amount of material that I send to a job and its price, the amount of material that I send to a job.

*Q.* Will you let the Commission see that?

*A.* Yes.

*Q.* All three, please?

*A.* Yes (handing books).

*Q.* Now, Mr. Tydings, you say that you occupied 411 Hudson Street for a time, 218 West Fifty-first Street for a time, and again 411 Hudson Street. Do those books show any payments for rent?

*A.* No, sir.

*Q.* They do not show any payments for rent?

*A.* No, sir, they do not.

*Q.* At any of those addresses?

*A.* No, sir.

*Q.* Now at present you occupy 411 Hudson Street?

*A.* 411 Hudson Street, yes, sir. -

*Q.* How do you pay the rent for 411 Hudson Street?

*A.* I give \$10 a month to Mr. McCleery, who is the lessee, and I have merely got desk room in there, I do not

really require any more than desk room, the time of job-shops is pretty near all over for builders.

*Q.* And when you occupied the same premises earlier how did you pay the rent, in the same way?

*A.* The same way, gave him cash at the end of the month.

*Q.* Now when you occupied No. 218 West Fifty-first Street, how did you pay the rent?

*A.* I paid it to George Walker.

*Q.* To George Walker?

*A.* Yes, I allowed him \$10.

*Q.* Who is George Walker?

*A.* He is the son of William H. Walker. They own the lumber yard at 218, the brothers.

*Q.* They own the lumber yard?

*A.* It is their business.

*Q.* Do you know who the tenant of 218 West Fifty-first Street was, that is, who held the lease of the premises?

*A.* At present?

*Q.* At that time?

*A.* At that time I was up there?

*Q.* Yes?

*A.* As far as I understand it was either the Walker Brothers or William H. Walker, himself, I think there was a question at one time of the boys being a little too young and irresponsible to get a lease from the old gentleman that was here this morning.

*Q.* Mr. Wendel?

*A.* I believe that is the man's name, I believe he considered the boys a little too young, and he did not care about taking the responsibility, while he knew the old gentleman, Mr. Walker, to be a responsible party, and he preferred to have him have the lease, but the boys owned the business.

*Q.* Do you know how long they have owned that business?

A. Well, I do not think it is more than two years anyhow.

Q. Two years?

A. I think I put that building up about two and a half years ago.

Q. Was that about the time they went into business?

A. Yes, sir, it was an empty lot there.

Q. They began business at 218 West Fifty-first Street, is that right?

A. Yes, sir.

Q. Now you say you paid the rent of that office to George Walker?

A. George Walker, yes, sir.

Q. How did you pay it?

A. In cash.

Q. And your books have no record of those payments?

A. No, sir, I did not put that down at all.

Q. Did you ever pay any rent as tenant of 49 Christopher Street?

A. I have some doubt of whether I stayed there a month or so after Boyce & Lynch got out, it strikes me that probably I stayed there for a month or so and then again I am not sure.

Q. And if you did to whom did you pay rent?

A. To Mr. Boyce.

Q. Mr. Boyce?

A. Yes, he was one of the firm.

Q. After the firm had smashed up?

A. Yes, sir, at the time we were there there were three concerns in that place.

Q. Who were they?

A. They were the Star Lamp Company, The Florida Sponge Company, young George Walker had a soap establishment, made soap in the back, and then Boyce & Lynch had the front portion where they had a carpenter's bench up, but their business was very much as my business is to-day, outside.

Q. Was that the same George Walker?

A. Yes, sir, that was the same George Walker.

Q. Now, you say there were three concerns that occupied it. Were they as far as you know the lessees from the landlords of the premises?

A. I do not know much about that.

Q. You do not know who leased the premises from the owners?

A. No, sir, I do not; not directly.

Q. Mr. Tydings, while you were employed by Boyce & Lynch you kept the books?

A. Yes, sir.

Q. For the most part?

A. Yes, sir.

Q. Now did you also attend to their banking department?

A. No, sir, I did not.

Q. Who attended to that?

A. They attended to that themselves.

Q. Did you ever see the warrants which they received from the City in payment for their work?

A. I do not recall that I ever did, I may have seen one or two. As a rule Mr. Boyce himself used to take care of the warrants and get the bills, anything addressed to them, any mail matter or anything like that addressed to them would come along in the mail and I did not open them at all, I did not have any authority to open their mail matter at all.

Q. Well now, you became familiar I suppose with the handwriting of the firm, did you not?

A. Oh, yes.

Q. You knew it?

A. Yes.

Q. How long had you known the members of the firm of Boyce & Lynch before you went into business with them or for them?

A. Oh, I knew old Tom Boyce ever since I have been in knickerbockers, a good many years. He used to work



a good many years ago for Mr. Walker when I was a boy, in the old days.

*Q.* He used to work for Mr. Walker then?

*A.* Yes, he used to work for Mr. Walker.

*Q.* Do you know what Mr. Boyce's business had been?

*A.* Had been?

*Q.* Yes?

*A.* Carpenter.

*Q.* Carpenter always?

*A.* Carpenter all his life, yes, sir.

*Q.* Do you know whether it was Mr. Boyce or Mr. Lynch who attended to the banking for their firm?

*A.* That I do not know, no, sir.

*Q.* Had you known Mr. Lynch for any length of time?

*A.* No, not for any great length of time, I did not know Mr. Lynch very intimately.

*Q.* Which one of the members of the firm was it who attended to the business of the firm?

*A.* Mr. Boyce principally.

*Q.* Mr. Boyce?

*A.* Yes, sir.

*Q.* Well, you would know Mr. Boyce's handwriting, wouldn't you?

*A.* Well, I have not seen it very much, but I guess I could identify it if I saw it.

*Q.* (Handing papers) Well, I show you warrants Nos. 36,389 and 39,808, both of A Manhattan, 1905, and ask you if the signature Boyce & Lynch appearing on the back of the warrants as an endorsement is in the handwriting of Mr. Boyce, if you know.

*A.* That I do not know, sir, I could not say.

*Q.* You do not recognize that hand?

*A.* No.

*Q.* Did you ever see it before that you know of?

*A.* No, not that I recall, unless that may be Mr. Lynch's signature, I do not know.

*Q.* Well, can you say that it is not Mr. Boyce's?

*A.* No, I cannot.

*Q.* It might be Mr. Boyce's?

*A.* Yes, sir, it might be Mr. Boyce's.

*Q.* Then you are not acquainted with Mr. Boyce's signature?

*A.* Not very thoroughly, no.

*Q.* Mr. Tydings, would you mind writing your name on that piece of paper.

(Witness writes his name on paper.)

*Q.* (Handing paper) Mr. Tydings, I show you warrant No. 47,839, A of Manhattan, 1906, payable to you. Is that your signature on the back of the warrant?

*A.* Yes, sir.

*Q.* That is your signature?

*A.* Yes, sir.

*Q.* (Handing paper) Now I show you warrant No. 9,220 of A Manhattan, 1906, and ask you if that is your signature endorsed on the back of that warrant made payable to you?

*A.* Yes, sir, it is.

*Q.* That is your signature?

*A.* Yes, sir.

*Q.* Well now, will you explain to the Commission how the name which appears as erased under your signature came to be written there and how it came to be erased?

*A.* That I do not recall now, sir.

*Q.* Do you know what the signature of that man written under yours is?

*A.* No, I do not.

*Q.* Is it Boyce & Lynch?

*A.* Well, I cannot say, it is thoroughly rubbed out there.

*Q.* You cannot remember how that came to be written in and later erased?

*A.* No, I cannot sir. It is quite a while ago, March, 1906.

*Q.* Yes, March, 1906?

*A.* No, I cannot.

*Q.* But you are positive it is your signature?

*A.* Yes, sir, that is my signature.

*Q.* (Handing paper) I show you warrant No. 51,378 of A Manhattan, 1906, payable to you. Is that your signature?

*A.* Yes, sir.

*Q.* (Handing papers) I show you twelve other warrants, all payable to you, all of 1906, series A, are the signatures endorsed upon the back of those warrants all yours?

*A.* Yes, sir.

The first five warrants shown the witness were admitted in evidence and marked Exhibits No. 172 to 176 inclusive, May 8th, 1907, C. B.

The paper on which the witness wrote his name was admitted in evidence and marked Exhibit No. 177, May 8th, 1907, C. B.

The twelve warrants last shown the witness were admitted in evidence and marked Exhibits No. 178 to 178-K inclusive, May 8th, 1907, C. B.

The WITNESS: I beg your pardon, Mr. Chairman, are these gentlemen members of your Commission?

Commissioner MITCHEL: They are members of the office, at least the gentleman examining the books is.

The WITNESS: Is this other gentleman too?

Commissioner MITCHEL: No.

The WITNESS: I certainly object to him looking through my books then.

Commissioner MITCHEL—Mr. Beecherer, will you sit over here by me?

MR. BEECHERER— I will not look at it.

The WITNESS: You have already looked at it. If he is not a member of your commission I decidedly object to any outsider going through my personal affairs.

*Q.* Now, Mr. Tydings, do you mean to tell this Commission that you wrote the signatures that appear on Exhibits No. 175 and No. 176, both?

*A.* Yes, sir.

*Q.* Those are both your signatures?

*A.* Yes, sir.

*Q.* And you are positive of that?

*A.* Yes, sir.

*Q.* Also all the signatures that appear upon these warrants that you looked at before?

*A.* Those have all been identified?

*Q.* Yes?

*A.* Yes, sir.

*Q.* But you have not any recollection of how that name, whatever it was, came to be written upon the back of that warrant and erased before you endorsed your name?

*A.* No, sir, I have not.

*Q.* Mr. Tydings, I want you to tell us again—refer to your books if you have to for the information—the names of all the men now employed by you in your business?

*A.* Boyce, Shea, Furnice, Baldwin, Bergen, Reilly No. 1, Johnson, McManus, and Reilly No. 2.

*Q.* How many does that make altogether?

*A.* That is nine.

*Q.* Nine men?

*A.* Yes.

*Q.* Did you mention Mr. Boyce?

*A.* Yes, sir, Mr. Boyce.

*Q.* How long have those men been with you, Mr. Tydings?

*A.* Oh, I should say they have been with me, these particular nine have been with me about nine weeks, or so, except in the case of Mr. Boyce and Mr. Shea, they have been with me right along.

*Q.* Do you keep the record of these men in that note book that you have?

*A.* Just for a week, that is all, and then transfer it into some other book against pay-roll at the end of the week.

*Q.* Do you mean that you use a new note book every week?

*A.* No, sir, I just keep them in there from page to page, that is all.

*Q.* How far back does that book run?

*A.* It just goes back into April, that is practically a new book.

*Q.* Just in April?

*A.* Yes, sir, it just goes to show that the men are present on the job from day to day, that is all.

*Q.* Have you kept records of that kind constantly in your work?

*A.* Yes, sir, a little book like this.

*Q.* Of the men employed?

*A.* Yes, sir.

*Q.* Did you keep those books, or are they destroyed?

*A.* No, sir, I do not keep them, they are of no use to me in the office at all.

*Q.* Now, Mr. Tydings, you say you began the carpentry business as an apprentice of Mr. Walker?

*A.* Years ago, yes, sir.

*Q.* Years ago?

*A.* Yes, sir.

*Q.* Now, how long did you remain in his employ?

*A.* I should say at that time it was probably three or four years, and then I do not know just where I went, I imagine that I went to electric wiring at one time, then again —

*Q.* Well, will you fix the time when you were employed by Mr. Walker as an apprentice?

*A.* I cannot very well fix those dates it is so far away.

*Q.* Can't you fix them approximately?

*A.* No, sir, I would not take a chance to fix them ap-

proximately, it is quite some years ago, I should say it was twenty years ago, anyhow.

*Q.* And you were employed about three years by him?

*A.* I should say about that time.

*Q.* And then what did you do?

*A.* I think then I went to electrical wiring, and I was for a spell in the Post Office, and I was for a spell in the steamship business; then I do not recall what else I went at, then I was cooeping for a time, I think that is about the extent of what I have been doing.

*Q.* Well, after you left Mr. Walker's employ as an apprentice where did you practice your trade?

*A.* I left—I went from him to electric wiring, I believe that was the jump I made about that time.

*Q.* Well, did you do carpentering there?

*A.* No, sir, stringing wires, I did some work up in the Third Avenue surface line, but I was an apprentice in that work, I do not just recall the firm I worked for, they were on Twenty-third Street, near Fourth Avenue, near Madison Avenue.

*Q.* Well, where did you do any carpentry work after you left Mr. Walker's employ?

*A.* Where did I do any carpentry work after I left Mr. Walker's employ?

*Q.* Yes?

*A.* Well, I have been in the electric wiring and the Post Office and steamship after that until about four or five or six years ago.

*Q.* Then where did you work?

*A.* I did work at Hallanans, this Fishburn Building, McGuires Building, I do not just recall.

*Q.* For whom were you working then?

*A.* I was working at that time for Boyce & Lynch.

*Q.* When you did this work which you have just mentioned?

*A.* Yes, sir.

*Q.* Well, that was about from two to four years ago, was it not?

A. Something around there.

Q. Well, then, from the time you left Mr. Walker's employ until you entered the employ of Boyce & Lynch you did not do any carpentry work did you?

A. No, sir, except down along the piers, coopering is something like carpentry work, you have to be a pretty handy man with tools, and it was through my small knowledge at that time of carpentry work that I got into coopering along the river.

Q. Well, now, you did not do any building work or carpentry work in buildings from the time you left Mr. Walker's employ until you got into the employ of Boyce & Lynch, did you?

A. No, sir, not that I recall.

Q. And then your entire experience in the carpentry or building business was gained in the three years that you were an apprentice to Mr. Walker and the time you were in the employ of Boyce & Lynch, is that right?

A. Yes, sir.

Q. Well, you say you had a little knowledge of carpentry before you were employed by Boyce & Lynch?

A. Yes, sir.

Q. Did you get a thorough knowledge of the business while you were employed by them?

A. Yes, sir. You do not have to handle a tool as a rule, going around these buildings and seeing these mechanics working and seeing the drawings and the tradesmen, you get a general idea of everything, not alone the carpentry work but you get an idea of the iron work and the plastering. I did not actually handle the tools myself.

Q. Well, in those two years did you get an expert knowledge of the carpentry business?

A. I got a general knowledge, I had a good general all-round knowledge, I could tell a man that was faking and I could tell a man that was doing good work; I can tell a botched job when I see it.

Q. You learned how to estimate the work?

A. Yes, sir.

*Q.* Now where did you get your experience in estimating for work?

*A.* Well, through seeing lumber bought, prices paid, and keeping track of the market and having a general idea of how much work a man could do in one day.

*Q.* And you gained all that knowledge in those two years?

*A.* Yes, sir.

*Q.* Well, now, from the time you left Mr. Walker's employ as an apprentice until you entered Boyce & Lynch's employment it was roughly fifteen years, was it not?

*A.* I should say it was pretty much that time.

*Q.* Now, during those fifteen years did you live for the most part in New York or elsewhere?

*A.* For the most part in New York, yes.

*Q.* Where, Mr. Tydings?

*A.* Well, down in Beach Street, down in Charlton Street, Hudson Street, One hundred and Twenty-third Street—I am there at present, One Hundred and Twenty-third Street. But during those fifteen years I should judge I was downtown, in that neighborhood, Charlton Street, for four or five years, Beach Street for quite a length of time, and Hudson Street for quite a length of time.

*Q.* Well, now, what connection did you have, if any, with Mr. Walker during those fifteen years?

*A.* During those fifteen years?

*Q.* Yes?

*A.* No connection at all, except in a business way since I have been doing some work here; all orders to do work in public buildings must originate in his office. No mechanic can go ahead on those buildings without getting an order from his office. And that is about the only relation I have had, that is, business relation. Socially I am quite intimate with himself and his boys, the boys are particular chums of mine. I have known the mother for years, and have known the father for years, in fact I was



a little bit of a tot and old Walker used to just spank me around Leroy Street.

*Q.* You have had no business relations with Mr. Walker from the time you left his employ as an apprentice until you got orders——

*A.* Getting orders in 1906 from his Department to do work around here on the buildings.

*Q.* But you knew him all that time?

*A.* Oh, yes, sir, I knew him all that time, and my father and mother knew him before me.

*Q.* Mr. Tydings, what led you to select 218 West Fifty-first Street as your office?

*A.* I thought business might be kind of brisk up there, I thought it would be a pretty good chance to pick up a little business if I got an office room there. While I did not expect the work to come into me, I thought I would have to go out after the work, but I thought that office and that locality was just about as good as any.

*Q.* Where did you expect to get that business?

*A.* Around the neighborhood, there is considerable building and carpenter work and repairing along Tenth Avenue there; I saw quite a number of carpenters up that way, and I judged that where there were so many mechanics there must be quite a lot of work, and what was the matter with me going up there. Uptown there along Tenth avenue the Tenement House Commission is going through that district and making plenty of work there, tearing out windows and doors and things of that kind.

*Q.* Did you get any of that work?

*A.* Very little, I found that all the men that were up there had been there about ten years, and they just about had a monopoly of it.

*Q.* Had you any connection with Walker Brothers other than paying them rent for office room?

*A.* That is all, sir.

*Q.* Had you any connection with William H. Walker other than occupying that office?

*A.* That is all, sir.

*Q.* And his receiving the rent?

*A.* That is the older William H. Walker?

*Q.* Yes?

*A.* No, sir, I had no connection with him.

*Q.* Are you now or have you ever been since you began business for yourself employed by William H. Walker in any way?

*A.* No, sir, I have not.

*Q.* You are positive of that?

*A.* I swear to it.

*Q.* Have you ever transferred or assigned to any person any part of the proceeds of these warrants paid to you by the City of New York?

*A.* Positively not, sir; there is not enough left to assign or transfer to anybody. They would not buy Cremos for me, for what I make on this work. That is a positive fact. This insinuation that money and graft is going around on petty larceny jobs like that, it is an insult to ask me such a question; it is not enough to buy cigars, let alone dividing with anybody.

W. D. LOUDEN, recalled for further examination, testified as follows:

By Commissioner MITCHELL:

*Q.* Have you examined the vouchers, warrants and accounts of the various offices showing payments made by the City of New York to Thomas Tydings?

*A.* I have.

*Q.* For the years 1906 and 1907?

*A.* I have.

*Q.* Did you make notes of the amounts of such payments?

*A.* I have for 1906.

*Q.* Will you tell us the total amount paid—first tell us whether this examination refers to orders issued other than on contracts let at public letting.

*A.* These are orders issued without contract.

*Q.* What is the total of the payments made to Thomas

*A.* Tydings in the year 1906 upon such orders?

*A.* \$12,727.44.

*Q.* Who issues those orders?

*A.* Those orders are issued by the Superintendent of Public Buildings and offices.

*Q.* And who is he?

*A.* William H. Walker.

MICHAEL HALLANAN, called as a witness, being duly sworn, testified as follows:

By Commissioner MITCHEL:

*Q.* What is your business, please, Mr. Hallanan?

*A.* I am the manufacturer of the Hallanan Horseshoe pads.

*Q.* Where is your place of business, Mr. Hallanan?

*A.* 186 West Fourth Street.

*Q.* And how long have you been there, how long have you occupied that office?

*A.* Well, I will be pretty near thirty-nine years there on the 1st of June, between the old building and the new building.

*Q.* Did you ever know a Michael H. Lynch, carpenter?

*A.* I did.

*Q.* Where did you know him, Mr. Hallanan?

*A.* Why, he used to be in Christopher Street.

*Q.* Do you remember the number?

*A.* I think it is 47 or 49 Christopher Street.

*Q.* (Handing papers) Mr. Hallanan, is this your signature under that of Michael H. Lynch on those warrants?

*A.* No, that ain't my signature, but if I don't mistake it is my daughter's signature, signed for me.

*Q.* Do you recognize the signature of Michael H. Lynch on the back of this?

*A.* I cannot say that I would, sir.

The warrants shown the witness, Numbers 17,068 and 23,401, Series A, Manhattan, 1904, were admitted in evidence and marked Exhibits Numbers 179 and 180, May 8, 1907, C. B.

*Q.* Now, Mr. Hallanan, did you ever cash City warrants for Michael H. Lynch?

*A.* Yes, sir, I did.

*Q.* Carpenter, of 49 Christopher Street?

*A.* Yes, sir, I did.

*Q.* You knew him personally?

*A.* He did some work for me.

*Q.* How long, if you know, did he occupy 49 Christopher Street?

*A.* During the year 1903 and 1904, I had some work done, and I think that Mr. Lynch and Mr. Boyce attended to that.

*Q.* Do you know where Mr. Lynch is now?

*A.* Really I do not know.

*Q.* Can you remember when you last saw him or heard from him?

*A.* I do not think I saw him in two or three years, I think it is all of that since I had any dealings with him or had any business with him. In fact I was not too well acquainted with him anyhow, but I was with his partner Boyce.

*Q.* Mr. Hallanan, who was it that requested you or your daughter to cash those warrants?

*A.* I think it was Mr. Boyce.

*Q.* Mr. Boyce?

*A.* He came along.

*Q.* Did anybody else ever talk to you about cashing those warrants besides Mr. Boyce?

*A.* It might have been a man by the name of George Walker who was in the same building. He came backwards and forwards to my place occasionally.

*Q.* It might have been he who asked you to cash those warrants?

A. Well, I know that Mr. Boyce has asked me and I think that Mr. Lynch did too, but I think that Mr. Walker had some of them cashed once in a while.

Q. Did Mr. William H. Walker ever ask you to cash any of those?

A. No, sir, he did not.

Q. Did you know who was the lessee of those premises No. 49 Christopher Street?

A. I did not.

Commissioner MITCHEL—That is all, Mr. Hallan.

JOHN M. COON, called as a witness, being duly sworn, testified as follows:

By Commissioner MITCHEL:

Q. Mr. Coon, what is your business, please?

A. Livery stable, boarding and livery.

Q. What is your address, your business address?

A. 51 Christopher Street.

Q. How long have you been at that address?

A. I should judge about fifteen years.

Q. Do you know of a carpenter shop which occupied those premises during the years 1904, 1905 and 1906—49 Christopher Street I speak of?

A. There has been a carpenter shop there owned by a party by the name of Boyce & Lynch I think.

Q. Anyone else?

A. Boyce & Lynch, I think that was the name of that.

Q. Did you know of anybody else who occupied or was tenant of that property?

A. Well, there has been other tenants in there, there was George Walker, he had soaps and sponges and such stuff as that, and there was the Star Lamp Company that was in there.

Q. Was George Walker in any way connected with the Star Lamp Company?

A. George Walker?

Q. Yes.

A. That I won't say for sure, I know George Walker's soaps, harness soaps.

Q. Well, did you know of anybody else who had any interest in those premises as tenant?

A. I do not know as I do, I do not know of anybody else.

Q. Mr. Coon, are you acquainted with William H. Walker, Superintendent of City Buildings and Offices?

A. Not personally, no, sir; I would know him if I would see him.

Q. Did you ever make a statement to anyone that you were a personal friend of William H. Walker?

A. No.

Q. Did you ever see William H. Walker at the premises 49 Christopher Street while they were occupied by Lynch, Boyce & Lynch or Tydings?

A. I have seen him there in my lifetime probably three times, not over that I think; that is I just came there and was talking generally to his son and would go away again.

Q. Have you knowledge of any interest——

A. What do you say?

Q. Have you any knowledge of any interest that William H. Walker had in the lease of those premises?

A. No, sir, I have not.

Q. Did you ever state to anybody that he was the tenant of those premises as you knew?

A. No, sir, never.

Q. You are positive of that?

A. Yes, sir. I do not know who had the running of it or anything of that kind, I never knew anything about it.

Q. But you say you saw him there perhaps three times?

A. About that I should think; very seldom I have seen him; I never spoke to the man in my life.

A. Do you know what he was doing there when you saw him?

A. That I could not tell you.

Q. Has Mr. Walker ever been in your shop to visit you?

A. Not that I have ever known, no; I have never spoken to the man in my life that I know of. I have spoken to his son George but not to Mr. Walker.

Commissioner MITCHEL—That is all.

THOMAS M. BLAKE, called as a witness, being duly sworn,  
testified as follows:

By Commissioner MITCHEL:

Q. Mr. Blake, what is your business?

A. Hay and grain.

Q. Where is your place of business?

A. 595 Washington Street.

Q. Where do you live, Mr. Blake?

A. 11 St. Luke's Place.

Q. Did you know Michael H. Lynch?

A. Yes, sir.

Q. Who and what was Mr. Lynch?

A. Who and what?

Q. Yes?

A. I knew him as the firm of Boyce & Lynch, I knew Michael H. Lynch personally.

Q. Was Michael H. Lynch ever to your knowledge in business for himself?

A. Not that I know of; I knew them as carpenters, Boyce & Lynch.

Q. You only knew of them as the firm of Boyce & Lynch?

A. That is all.

Q. Did you cash warrants for Mr. Lynch at any time?

A. I cashed them for Boyce & Lynch, and I think I did most all for Boyce personally; I do not remember whether I cashed one for Lynch or not, but generally Boyce.

Q. You always did it at the request of Mr. Boyce, is that right?

A. Yes, sir, of Mr. Boyce.

Q. In what years was that?

A. Well, I cannot remember, I should think about two or three years ago.

Q. Well, was it in 1904, can you remember that?

A. I cannot remember just when it was, I had no occasion to keep account or anything of it, of any transaction.

Q. Well, do you recollect ever cashing a warrant at the request of Mr. Lynch?

A. I have a kind of recollection that I did, I am not positive about that.

Q. But you are quite positive that most of them you cashed at the request of Mr. Boyce?

A. Yes, sir, most of them at the request of Mr. Boyce, but I thought there was one for Mr. Lynch probably.

Q. (Handing papers) Well, now, I show you seven warrants with the name Thomas M. Blake endorsed upon the same, and ask you if that is your signature, Mr. Blake, in all those cases?

A. Yes, those are all my signatures.

Q. Well, now, Mr. Blake, did you cash these warrants at the request of Mr. Boyce?

A. Yes, sir—well, now, I say that I have not cashed one for Mr. Lynch, I am not positive, but most generally for Mr. Boyce.

Q. Well, you notice that all these warrants are payable to Michael H. Lynch?

A. Most of them.

Q. Well, can you explain how it is that you came to cash some or any of those at the request of Mr. Boyce when they are payable to Mr. Lynch alone?

A. Because I always regarded Mr. Boyce and Mr. Lynch as one, no matter who had the signature, the firm of Boyce & Lynch, I knew that they were together in business, I knew them both personally, I would have cashed the warrants for either one that would have asked me.



*Q.* Well, did you ever hear that Mr. Lynch was in business for himself alone?

*A.* No, sir, I had no more than a general knowledge or talk, and seeing the sign of Boyce & Lynch.

*Q.* They were always there together, were they?

*A.* I do not know that they were there together, for I never was in their place.

*Q.* Did you ever cash any of these or any other warrants at the request of any person or persons other than Michael H. Lynch or Thomas H. Boyce?

*A.* Well, what do you mean by other warrants?

*Q.* I am speaking of warrants payable either to Lynch or Boyce & Lynch?

*A.* No, never for others.

*Q.* You were always requested to either by Mr. Lynch or Mr. Boyce?

*A.* Generally Mr. Boyce, I remember him the most.

*Q.* Can you describe to us Mr. Lynch's appearance?

*A.* Well, I should judge a slim man, about your size, thin face.

*Q.* Tall or short or what?

*A.* About your size.

*Q.* Is that the most detailed description you can give us of him?

*A.* Yes.

*Q.* Well, don't you remember him very clearly?

*A.* I do, yes, very clearly, I know him very well.

*Q.* Do you know where he is now?

*A.* No, I do not.

*Q.* When did you last see him?

*A.* About a year ago I imagine.

*Q.* Do you know what he was doing then?

*A.* No. I called on his family, his folks, I knew his family well.

*Q.* Where did he live in New York when he was here?

*A.* Well, his folks lived in Bethune Street. I thought he lived with them.

*Q.* Bethune?

A. Yes.

Q. Do you know whether they still live there?

A. I think they do.

Q. Do you know the address?

A. I don't know the number.

Q. Are you acquainted with Mr. William H. Walker?

A. Yes, sir.

Q. For a long time, or how long?

A. Well, as long as I have been living in that neighborhood, that block, about sixteen years.

Q. Living in that block, what do you mean?

A. St. Luke's Place.

Q. Mr. Walker lived there?

A. Yes.

Q. What number do you say you live at?

A. No. 11.

Q. Where does Mr. Walker live?

A. No. 6.

Q. How long have you known Mr. Boyce?

A. I have known Mr. Boyce—well, fifteen years fully.

Q. Now, will you describe to us what Mr. Boyce looks like?

A. Well, a little short stout oldish fellow, pale face.

Q. You kept your account in the New York National Bank, didn't you?

A. New York County National Bank.

Q. Do you know why you were asked to cash all these warrants?

A. Why I was asked?

Q. Any explanation ever made to you?

A. No.

Q. Well, did you consider it perfectly natural that they should ask you to cash a series of warrants like this?

A. Yes, I think so.

Q. Do you think it natural that a firm doing ten or twelve thousand dollars worth of business a year should not have a bank account?

A. I have known such to be the case.

*Q.* And you did not question it?

*A.* No.

*Q.* Well, now, Mr. Blake, can you tell us of any other city warrants which you have cashed for other people?

*A.* Well, I have cashed city warrants, but I don't refer so much to city warrants as other bills; I have people I have cashed as high for as \$10,000, at a time that didn't have a bank account.

*Q.* Well, I am speaking of city warrants. Have you been in the habit of cashing city warrants for other people?

*A.* Well, I have cashed city warrants.

*Q.* Well, I mean regularly for any one person or firm?

*A.* No, not regularly, it would come indiscriminately, I cashed one here the other day for a piece of property that was sold, held by the Comptroller for payment, a city warrant, the same, up at the same bank.

*Q.* Do you know Mr. Boyce's handwriting?

*A.* No, I do not.

*Q.* Do you know Mr. Lynch's?

*A.* No, I don't think so, I had no occasion to know either one of them, no more than they would come with the warrant and sign it.

*Q.* You didn't know them beyond cashing the warrants for them?

*A.* Oh, I knew them personally; what I mean, I didn't have any business relations by which I would know their signatures in any way.

Commissioner MITCHEL—I think that is all.

JAMES McCLEERY, called as a witness, being duly sworn, testified as follows:

*Examined by Commissioner MITCHEL:*

*Q.* Mr. McCleery, what is your business, please?

*A.* House painter.

*Q.* Where is your place of business?

*A.* 411 Hudson Street.

Q. How long have you been in that business, Mr. McCleery?

A. All my lifetime.

Q. How long have you been at that address?

A. Well, I have been at that address about six years and about two blocks below for about ten years.

Q. Are you acquainted with the firm of Boyce & Lynch?

A. Yes, sir.

Q. What was their place of business when you were acquainted with them?

A. Christopher Street.

Q. The number?

A. I really couldn't tell you: it was over near Fourth Street I think.

Q. Did you ever visit them there?

A. Well, once or twice I have been there.

Q. But you do not remember the number?

A. No. I know where it is, 49 I think. Didn't somebody say to-day it was 49? I never had any occasion to know the number, but I know the place very well.

Q. Now, Mr. McCleery, you were in the habit of cashing warrants for the firm of Boyce & Lynch, city warrants?

A. Sometimes, yes, sir.

Q. At whose request did you cash them?

A. At Mr. Boyce's—Boyce I believe his name is.

Q. Mr. who?

A. Boyce.

Q. Did you ever cash them at Mr. Lynch's request?

A. No, sir.

Q. Did you know Mr. Lynch?

A. Slightly, yes, sir.

Q. When did you last see Mr. Lynch?

A. I haven't seen Mr. Lynch in some time.

Q. Do you know what connection Mr. Lynch had with the business of Boyce & Lynch?

A. I understand he was a partner, sir; I could not say for sure.

Q. Did you ever see him in charge of any of the work that the firm was doing?

A. No, I never saw any one of them in charge of any of the work that I know of, I never saw their men working.

Q. Never saw them?

A. I don't remember.

Q. (Handing papers) There are thirteen warrants payable to the firm of Boyce & Lynch?

A. Checks.

Q. Yes, city warrants, the same as checks. Is that your endorsement on each one of those warrants?

A. They look very much like it to me, sir. I know people that can write my name better than I can, so I wouldn't swear to it at that. I guess they are mine.

Q. Do you believe those to be your signatures?

A. I think they are.

Q. Did Mr. Boyce ever make any kind of an explanation to you for asking you to cash those warrants?

A. No, sir, not particularly.

Q. Did you ever ask him why it was he wanted you to cash them?

A. No, sir, I never did. I knew Mr. Boyce for a good many years. I have often lent him money and cashed his checks.

The warrants identified by the witness were admitted in evidence and marked Exhibits 181A to 181-L inclusive respectively, May 8th, 1907, C. B.

Q. Now, you cashed these for Mr. Boyce just as a matter of accommodation and friendship, is that right?

A. Yes, that is right, sir. Sometimes he had the money before I got the checks.

Q. How long had you known Mr. Boyce?

A. I have known Mr. Boyce for twenty years.

Q. Knew him very well?

A. Yes, sir.

Q. Well, did you know Mr. Boyce to be responsible or was it just a matter of personal trust?

A. Well, I knew Mr. Boyce was responsible too, Mr. Mr. Boyce had quite some property at one time.

Q. Now, are you acquainted with Thomas A. Tydings?

A. Yes, sir, personally.

Q. You cashed some warrants for Thomas A. Tydings?

A. I did, sir.

Q. Did he ask you to cash the warrants?

A. Yes, sir. He also borrowed money before they were cashed too.

Q. What?

A. He also borrowed money off of me before they were cashed.

Q. Did he ever make any explanation to you?

A. No, sir. I asked him one time why he didn't make a bank account of his own, he said he didn't like banks, he said his father or someone else lost some money at a bank one time.

Q. Now, I show you Exhibits Nos. 175, 176 and 174, being warrants all drawn to the order of Thomas A. Tydings. Are those your endorsements on the back of those, Mr. McCleery?

A. I guess there is no doubt about it at all. I cashed them. I will cash some more for him if he brings them along, sir. I guess that is all right, sir; I would cash a city check, no matter who owns it; the trouble is you can't get enough of them, that is all that worries me.

Q. Mr. McCleery, I show you twelve warrants all marked Exhibit 178, all payable to the order of Thomas A. Tydings. Are the endorsements on the back of those warrants yours?

A. I should say they were if it is my name on it. I don't know anybody else that would do it. As I said before, I know a man that can do it better than I could and I couldn't tell it either. Those look very like it. I don't

think there is a particle of doubt about this being the real thing.

*Q.* Mr. McCleery, have you cashed any warrants for a Mr. Tydings within the last three months?

*A.* Within three months?

*Q.* Yes?

*A.* I think so, sir, I am pretty sure I have.

*Q.* How long have you known Mr. Tydings?

*A.* Well, I have known Mr. Tydings for two or three years probably.

*Q.* When did Mr. Tydings first take an office in your office 411 Hudson Street?

*A.* Some time in the winter, I don't know just what time it was.

*Q.* This winter?

*A.* The past winter or last fall some time, I think it was.

*Q.* That was the first time?

*A.* I think so, yes, sir. He has been around there, had desk room there, he has been coming there a long time before he made any arrangements to pay rent, he used to keep a desk there to save him from going uptown, it was handier for him.

*Q.* That is, he occupied desk room in your office while he had his office up at Fifty-first Street, is that right?

*A.* Yes, sir.

*Q.* When did he first move his entire office down to your place?

*A.* I guess three or four months ago, somewheres in that neighborhood.

*Q.* That is the first time he had his whole office——

*A.* Yes, sir, that he had his whole office there.

*Q.* Well, has Mr. Tydings maintained a sign there since he moved down?

*A.* Yes, sir. As I say, he was there long before he had the sign there, he used to come there and make out bills there and had a desk there.

*Q.* That was while he had his office in Fifty-first Street?

*A.* He was uptown somewhere, I don't know where.

*Q.* Now, when was the sign which he has there now first put up?

*A.* Well, I say it is probably three or four months ago, I couldn't tell you just when.

*Q.* Do you know who it was put it up for him?

*A.* I do, yes, sir, one of my men put it up.

*Q.* What was his name?

*A.* James Degner.

*Q.* Are you positive it was as much as three months ago?

*A.* No, I wouldn't be positive, I didn't keep any record of it.

*Q.* Might it have been two months ago?

*A.* It might have been two months ago, but I am pretty sure it is more than two months ago.

*Q.* The sign was put up at the same time he moved his office in whole down to your place, wasn't it?

*A.* No, sir, he was down there some time before that.

*Q.* He had his entire office there some time before?

*A.* Yes, sir.

*Q.* How much before?

*A.* Probably a month or two.

*Q.* How much time does Mr. Tydings spend in the office?

*A.* Well, I really couldn't tell you, I don't spend much myself, I don't go there at all some days, it is locked up all the time, he has got a key and I have got a key, we go there when we feel like it; sometimes I won't meet him there in a week. The place is locked up, a little shop, I don't keep an office there much.

*Q.* Aren't there days also when Mr. Tydings doesn't come there?

*A.* There might probably be. I know there is lots of days I don't go there, in fact I ain't there very much to



day for instance, and there is lots of other days I have just like this, but in different business.

*Q.* When did Mr. Tydings first begin to pay you rent, Mr. McCleery?

*A.* I think he has paid about three months or so, it is either two or three months I got some money out of him.

*Q.* Has he paid you by check?

*A.* No, sir.

*Q.* Always in cash?

*A.* Yes, sir. I guess he ain't got any checks. I don't think he pays anything—I never seen any of his checks. He keeps it in his pocket.

*Q.* Mr. McCleery, you do some work for the Bureau of Public Buildings and Offices, don't you?

*A.* Yes, sir, do a little.

*Q.* Painting work?

*A.* Yes, sir, that is all, nothing else.

*Q.* Do you do that work under what are known as monthly orders?

*A.* Sometimes I get a monthly order.

*Q.* That is, is it not, an order to do all the work necessary in the public buildings during a given month up to a certain amount of money?

*A.* Well, I don't think I have had any of them orders in some time, I did have some of them, I believe, some time ago, but I don't think I have had any lately. I believe they do issue a monthly order, but I don't know who gets them. I just get a little order to go do some hurry-up job, sometimes it is Sunday, sometimes it is night, court rooms or judges' rooms.

*Q.* You received some of those orders in 1904, 1905 and 1906, didn't you, Mr. McCleery?

*A.* Yes, I guess it is as long ago as that.

*Q.* Do you know Mr. William H. Walker?

*A.* Yes, sir.

*Q.* How long have you known Mr. Walker?

*A.* Twenty years, probably more.

*Q.* Where have you known him?

A. We did journey work together, both of us.

Q. Where have you known him?

A. In New York, sir. He was working at carpentry work and I was doing house painting, both on the same job, and we both went in business, and we done contracting business together afterwards.

Q. Where do you live now, Mr. McCleery?

A. I live out in New Jersey now, sir.

Q. Now, these warrants that you cashed for Boyce & Lynch and Tydings you deposited in your bank, didn't you?

A. Yes, sir.

Q. And that is the Greenwich Bank?

A. Yes, sir.

Q. What is the amount of the rent Mr. Tydings pays you for desk room in your office?

A. I told him I would charge him \$15 a month. He thinks \$10 is enough, but I told him I didn't think so. He said he would only pay \$10. If he don't pay \$15, I will put him out.

Q. How many desks are in the office, Mr. McCleery?

A. Only two, sir.

Q. Yours and his, is that right?

A. That is all, sir.

Commissioner MITCHEL—Mr. McCleery, the Commissioners will excuse you now, subject to recall later on notice, if you will agree to come.

The WITNESS—I will only be too happy to give you any information I know of.

W. D. LOUDEN, recalled for further examination, testified as follows:

*Examined by MR. MITCHEL:*

Q. Have you made an examination of the records, vouchers and warrants in the Bureau of Public Buildings and Offices to ascertain the amount paid to Michael H.

Lynch, to the firm of Boyce & Lynch and to Thomas A. Tydings for the years 1904, 1905, 1906 and 1907 to date?

A. I have, with the exception of 1907.

Q. Well, then, taking 1904, 1905 and 1906, tell us first as to Michael H. Lynch?

A. In 1904 Michael H. Lynch was paid \$10,371.20.

Q. Was that on orders issued without formal letting of contracts?

A. It was.

Q. Go on?

A. That is all he received. He received nothing in 1905 and 1906.

Q. Did the firm of Boyce & Lynch receive anything in 1904?

A. No, sir.

Q. What did the firm of Boyce & Lynch receive in 1905?

A. Boyce & Lynch did receive something in 1904, excuse me.

Q. How much?

A. \$1,891.46.

Q. What did the firm of Boyce & Lynch receive in 1905 total?

A. \$12,202.03.

Q. Was that on orders issued without public letting of contracts?

A. It was.

Q. Did the firm of Boyce & Lynch receive anything in 1906?

A. They did, \$1,663.37.

Q. Was that also on orders without formal letting of contracts?

A. It was.

Q. Did Thomas A. Tydings receive anything in 1905?

A. He received nothing in 1905.

Q. What did he receive in 1906?

A. \$12,727.44.

*Q.* Was that on orders issued without formal letting of contracts?

*A.* Yes.

*Q.* Now, give us the total payments made to all those men mentioned for the three years?

*A.* Individually, M. H. Lynch received a total for the three years of \$10,371.20. Boyce & Lynch for the three years \$15,757.06. Thomas A. Tydings for the three years, \$12,727.44. The total for each year of the three persons, 1904——

*Q.* No, I am asking for the totals for the three years for all three firms?

*A.* Grand total?

*Q.* Yes?

*A.* \$38,855.70.

*Q.* Practically all that Michael H. Lynch received he received in 1904, didn't he?

*A.* Yes.

*Q.* Practically all Boyce & Lynch received they received in 1905, didn't they?

*A.* They did.

*Q.* Practically all Thomas A. Tydings received he received in 1906, didn't he?

*A.* 1906.

*Q.* And you say the grand total is how much?

*A.* The grand total is \$38,855.70.

*Q.* Do you know whether or not these firms or any of them received any payments on contract?

*A.* I think they did, which ones I won't be sure. I haven't looked into that matter, but I am quite sure some of them did, Boyce & Lynch, if I remember rightly.

Adjourned to May 10, 1907, at 10:30 A. M.

New York, May 10, 1907.

Met pursuant to adjournment.

Present — Commissioners HERTLE and MITCHEL; and  
MR. BRUERE.

MARVYN SCUDDER, recalled for further examination, testified as follows:

*Examined by Commissioner MITCHEL:*

Q. Mr. Scudder, at one of the former hearings you testified to a list of 571 fire burns, if I recall correctly, reported by the inspectors of the Bureau of Highways, which were returned to the Borough President's office and re-inspected by that office, is that right?

A. That is right.

Q. You testified, I believe, as to the number of those burns which were allowed by the Borough President's office. Can you recollect how many were allowed?

A. 571 items all told, only 32 allowed, 539 not allowed.

Q. Was there any correspondence between the offices of the Chief Engineer, the Superintendent of Highways and the Borough President?

A. There was. Do you wish me to read that?

Q. Have you with you the original letters that passed between those offices?

A. I have, with the exception of two I believe, and of those two I have made copies.

Q. What original letters have you with you this morning?

A. Letter to George R. Olney, Chief Engineer of Highways, as of December 24th, 1906, from D. B. Goodsell, Assistant Engineer, reporting examination of certain streets that he had found to be damaged by fire burns to the extent as indicated in the list attached.

The letter was received in evidence and marked Exhibit 182, May 10, 1907, C. B.

Q. Read that letter please, Mr. Scudder?

A. (Reading)

"December 24, 1906.

George R. Olney, Esq.,

Chief Engineer of Highways.

Dear Sir:

I beg to report that I have examined the following streets and find them to have been damaged by fire-burns to the extent and at the places indicated in the following list:

FRUIN-BAMBRICK COMPANY.

Twenty-eighth Street, from Ninth to Tenth Avenue, 264.1 square yards.

Waverley Place from Sixth Avenue to Macdougall Street, 8.27 square yards.

BARBER ASPHALT PAVING COMPANY.

Waverley Place from Sixth Avenue to Christopher Street, 10.4 square yards.

Macdougall Street, Waverley Place to Eighth Street, 1.5.

Twenty-fifth Street from Eighth to Tenth Avenue, 924.5.

Fifty-fifth Street from Sixth to Madison Avenue, 9.2.

Twenty-seventh Street from Fifth to Sixth Avenue, 34.3.

Thirty-eight Street, Sixth Avenue to Broadway, 29.1.

Thirty-ninth Street, Sixth Avenue to Broadway, 44.8.

Thirty-first Street, Broadway to Fifth Avenue, 51.5.

First Avenue, Twenty-sixth to Twenty-eighth Street, 105.2.

Seventh Avenue, Twenty-third to Forty-second Street, 969.1.

Sixty-fifth Street, Broadway to Madison, 66.

Twenty-fourth Street, Broadway to Tenth Avenue, 1031.9.

Twenty-sixth Street, Madison to Tenth Avenue, 2,467.5.

ATLANTIC ALCATRAZ ASPHALT COMPANY.

First Avenue, from south side Forty-ninth to south side Fifty-first Street, 176.9.

First Avenue, from north side Seventy-second to south side Seventy-fourth Street, 20.5.

Twenty-eighth Street from Eighth to Ninth Avenue, 38.3.

First Avenue, from Twenty-eighth to 120.6 feet north of Thirty-second Street, 143.9." Feet is not in here, but that is what it must mean.

"First Avenue, from north side Fifty-fourth to south side Sixty-fifth Street, 24.4.

Thirty Street, from Tenth Avenue to 497 feet west, 88.6.

Sixty-eighth Street, from Columbus Avenue to Madison Avenue, 95.2.

First Avenue, from north side Sixtieth to south side Sixty-first Street, 33.1.

WARREN-SCHARE PAVING COMPANY.

First Avenue from south side Seventy-fourth to north side Eighty-fifth Street, 395.5.

First Avenue, from south side Sixty-first to north side Seventy-second Street, 617.3.

Thirty-second Street, from Sixth to Fifth Avenue, 31.

First Avenue, from Twentieth to Twenty-sixth Street, 433.6.

First Avenue, west side, 70 feet south Thirty-fifth Street to 69 feet south Thirty-sixth Street, and First Avenue east side, 5 feet south Thirty-fifth Street to 140 feet south Thirty-sixth Street, 90.1.

First Avenue, south side Fifty-first to north side Fifty-fourth Street, 282.5.

First Avenue, south side Thirty-sixth to south side Forty-ninth Street, 892.2.

First Avenue, south side Fifty-sixth Street to north side Sixtieth Street, 226.6.

Sixty-sixth Street, Broadway to Madison Avenue, 46.2.

Waverley Place, from Broadway to Fifth Avenue, 4.

Washington Street, from Broadway to University Place, 5.94.

Fourth Street, from Broadway to Macdougall Street, 1.66." Making a total as I have figured——

*Q.* Are you reading from the letter?

*A.* No.

*Q.* Finish the letter.

*A.* "Respectfully, D. B. Goodsell, Assistant Engineer, approved George R. Olney."

*Q.* Have you computed the totals from the items of that letter?

*A.* Yes.

*Q.* What is the total?

*A.* 9,673.87 square yards.

*Q.* Has any other correspondence passed between the offices?

*A.* Yes, I have another original letter, December 24th, 1906.

*Q.* Written by whom?

*A.* This is written by George R. Olney, chief engineer.

*Q.* Addressed to whom?

*A.* Hon. William Dalton, Commissioner of Public Works.

The letter was received in evidence and marked Exhibit No. 183, May 10th, 1907, C. B.

*Q.* Read that letter, Mr. Scudder?



A. (Reading)

"December 24th, 1906.

Hon. William Dalton,

Commissioner of Public Works.

Dear Sir:

I herewith submit a report made by D. B. Goodsell, assistant engineer in this Bureau, giving a list of streets upon which the pavement has been damaged by fire burns. There is also attached to said report a list showing the locations of such fire burns and the area thereof. I have approved such report and recommend that orders be issued to the several asphalt companies mentioned in said report to restore the pavements so damaged and to the extent mentioned in said report. The work of such restoration should be done as soon as possible in order to put the streets in good condition for the winter.

Respectfully,

George R. Olney, Chief Engineer.

Approved George F. Scannell, Superintendent of Highways."

*Q.* Is there any other correspondence between the offices?

*A.* There is another letter in this connection as of April 18th, 1907.

*Q.* Do you mean dated April 18th, 1907?

*A.* April 18th, 1907.

*Q.* Written by whom?

*A.* Written by George F. Scannell, Superintendent of Highways.

*Q.* Addressed to whom?

*A.* To Hon. William Dalton, Commissioner of Public Works.

The letter was received in evidence and marked Exhibit No. 184, May 10th, 1907, C. B.

*Q.* Read the letter please, Mr. Scudder?

*A.* (Reading)

April 18th, 1907.

Hon. William Dalton, Commissioner of Public Works:

In reply to letter 8, H-1, directing that orders be prepared in favor of the Barber Asphalt Company for the repair of asphalt pavement on Seventh Avenue between Twenty-third and Forty-second Street, destroyed by bonfires, I beg to state that requisitions for the necessary repairs were drawn this date.

Respectfully,

George F. Scannell,  
Superintendent of Highways.

*Q.* Was it with that letter that the list of burns was transmitted?

*A.* This is a letter recently written. The letter that refers first to this list of fire burns was written prior to this time.

*Q.* Prior to what time, Mr. Scudder?

*A.* Prior to April 18th, 1907.

*Q.* Now have you with you the original list of burns transmitted by the bureau of Highways to the Borough President?

*A.* I have.

*Q.* Is that the original list.

*A.* This is the original list, this is in duplicate.

The list was received in evidence and marked Exhibit No. 185, May 10th, 1907, C. B.

*Q.* Mr. Scudder, will you tell us what notations you find, if any, upon that exhibit last received?

*A.* I will read this off by pages, speaking of the pages as I come to them, as they are not numbered——

*Q.* Well, Mr. Scudder, I do not want you to read that entire list off. I simply want you to tell us what notations you find on the list, generally speaking?

A. I will tell you those notations as to the pages in order in which they are attached. The first page refers to something over sixty items of reported fire burns on Seventh Avenue, Twenty-third to Forty-second Street, Barber Company is at the top of the page.

This page has been crossed out in pencil and in writing in pencil at the bottom of the page "No fire burns" appears. The initial D appears on the lower right hand corner.

Q. The initial D?

A. The initial D.

Q. Does that notation which you just mentioned mean that the entire list of fire burns appearing on that page was struck out?

A. The entire list was struck out.

Q. And the burns disallowed as fire burns?

A. The burns disallowed as fire burns.

Q. Go on?

A. The next page is a continuation of Seventh Avenue, Twenty-third to Forty-second Street, and also Sixty-fifth Street, Broadway to Amsterdam Avenue. All the items are likewise on this page crossed out, and "no fire burns" is written, and the initial D is in the lower right hand corner.

The next page is Twenty-eighth Street, Ninth Avenue to Tenth Avenue. At the head of the page it says, "Fruin-Bambrick Company." All the items on this page are crossed out with the exception of six items, after which a cross is made. Below is another cross, at the bottom of the page, and after it "fire burns, rest wear and tear."

The next page, Twenty-fifth Street, Eighth to Tenth Avenue. Under the heading Barber & Company, the items are crossed out on this page except six items, after which a cross is made in each case, and a cross at the

bottom of the page; "fire burns, rest wear and tear." The initial D in the lower right hand corner.

The next page, Twenty-fifth Street, Eighth to Tenth Avenue; Fifty-fifth Street, Sixth to Madison Avenue; Twenty-seventh Street, Fifth to Sixth Avenue; all under Barber & Company, are all crossed out with the exception of five items; and a cross at the bottom of the page referring to these five items says, "Fire burns, wear and tear;" and a D in the lower right hand corner.

The next page is entirely crossed out, Twenty-fourth Street, Broadway to Tenth Avenue, labeled, "All wear and tear," at the bottom in pencil.

The next sheet is Twenty-sixth Street, Madison to Tenth Avenue, all crossed out. "Wear and tear" written at the bottom of the page, and the initial D appears.

The next is Twenty-sixth Street, Madison to Tenth Avenue. All items on this page are crossed out. "Wear and tear" is written at the bottom of the page, and the initial D appears in the lower right hand corner.

On the next page, Twenty-sixth, Madison to Tenth Avenue, all items are crossed out, and at the bottom of the page, in pencil, "All wear and tear."

On the next page, Twenty-fourth Street, Broadway to Tenth Avenue, all items are crossed out, "Wear and tear" is written at the bottom of the page, and the initial D appears in the lower right hand corner.

On the next page, Thirty-eighth Street, Sixth Avenue, to Broadway, Thirty-ninth Street, Sixth Avenue to Broadway, all are crossed out.

Thirty-first Street, Broadway to Fifth Avenue and First Avenue, Twenty-sixth to Twenty-eighth Street, contains some items that are not crossed out. The number of those items is fifteen that are not crossed out. That is all.

*Q.* Does that complete the list, Mr. Scudder?

*A.* That completes the list of 571 items.

*Q.* And of those 571 items how many, again, do you say were disallowed?

*A.* Five hundred and thirty-nine.

*Q.* Now, the disallowance was made by whom, or on whose inspection was this disallowance?

*A.* On Mr. Atwell's inspection.

*Q.* How do you know?

*A.* I have been told so.

*Q.* By whom?

*A.* Mr. Goodsell and Mr. Atwell's name appeared written on some of the original letters that are not here in this connection.

*Q.* Who is Mr. Atwell?

*A.* Mr. Atwell is inspector for the Borough President and has his desk in the Borough President's office in City Hall.

*Q.* For what year were these fire burns?

*A.* These were for the year 1906.

*Q.* Have you examined the records of the Department to find whether any fire burns reported by the inspectors of the Bureau of Highways have ever before been disallowed by any other inspectors?

*A.* I have.

*Q.* What did you find as to that?

*A.* With the exception of those items that I read the other day, since this last election time I have found no items disallowed. I particularly refer to many items in December, 1905, that were reported and were all accepted.

*Q.* Do you mean that before the case of the list of burns that you have testified to, of burns reported by the Bureau of Highways were passed as reported?

*A.* I do not say that, I say I have looked at a great many of the reports and have not as yet been able to find any cases where any items were disallowed.

*Q.* What proportion of the reports have you examined?

*A.* I have examined most of them for the last year, and I should say half of them for the year 1905.

*Q.* Any of 1904?

*A.* I have not examined any in 1904, but I have inquired about them.

*Q.* You have not examined any for 1904?

*A.* I have not examined any for 1904.

Commissioner MITCHEL—That is all, Mr. Scudder.

ANDREW DERROM, called as a witness, being duly sworn, testified as follows:

By Commissioner MITCHEL:

*Q.* Mr. Derrom, what is your business, please?

*A.* I am general bookkeeper at the main office of the Greenwich Bank.

*Q.* How long have you been general bookkeeper of the Greenwich Bank?

*A.* A year.

*Q.* A year?

*A.* Yes.

*Q.* Have you charge of the accounts of the various depositors?

*A.* No.

*Q.* What is your connection with the accounts of the general depositors of the bank?

*A.* I have no connection at present.

*Q.* The Greenwich Bank was subpoenaed to produce here this morning the books and accounts showing the depositors' ledgers, deposit books and deposit slips, pertaining to the accounts of James McCleery, Thomas A. Tydings and others, and also subpoenaed to produce the same books showing the account of William H. Walker. Have you attended with those records?

*A.* I have the transcripts of the accounts here.

*Q.* In what form have you brought the record of the accounts?

*A.* In the form showing the deposits made by each one of those parties and the checks that were drawn by them against the account.

*Q.* Now who made these transfers?

*A.* The bookkeeper that works on those ledgers.

*Q.* Are you representing the bank this morning in bringing those here?

*A.* Yes, sir.

*Q.* By instructions from whom?

*A.* By instructions from the Assistant Cashier who has charge of that matter.

*Q.* Who did you say made these transcripts?

*A.* The bookkeeper who works on the ledger that those accounts are kept in.

*Q.* Well, is he under your supervision and charge?

*A.* No, not exactly. No, sir.

*Q.* Well, you are the chief bookkeeper of the bank, are you not?

*A.* Yes, sir.

*Q.* Well, are not the other bookkeepers of the bank under your supervision?

*A.* Well, I suppose you might say so, yes, sir.

*Q.* Well, have you a transcript of the account of William H. Walker?

*A.* Yes, sir.

*Q.* Was that transcript made by the bank pursuant to the call in this subpoena?

*A.* Yes, sir.

The paper was received in evidence and marked Exhibit No. 187, May 10, 1907, C. B.

*Q.* Have you also a transcript of the account of James McCleery?

*A.* Yes, sir.

*Q.* Was this transcript also made by the bank pursuant to the direction in the subpoena?

A. Yes, sir.

The paper was received in evidence and marked Exhibit No. 188, May 10, 1907, C. B.

Q. Have you also with you a transcript of the account of Thomas A. Tydings?

A. Yes, sir.

Q. Is this the transcript?

A. Yes, sir.

Q. Made by the bank pursuant to the request in the subpoena?

A. Yes, sir.

The paper was received in evidence and marked Exhibit No. 189, May 10, 1907, C. B.

Q. Will you look at Exhibit No. 189, the transcript of the account of Thomas A. Tydings, and tell us whether that shows on what day the account was opened with the Greenwich Bank?

A. Yes.

Q. On what day was the account opened?

A. The 1st of March, 1907.

Q. The 1st of March, 1907?

A. Yes, sir.

Commissioner MITCHEL—That is all.

OTTO C. ERBEN, called as witness, being duly sworn, testified as follows:

By Commissioner MITCHEL:

Q. Mr. Erben, what is your business?

A. Collector for Woodcock & Britt.

Q. You mean the real estate firm of Woodcock & Britt?

A. Yes.

Q. How long have you been collecting for that firm?

A. Nine years.



*Q.* When you say collecting, do you mean collecting rents of the premises?

*A.* Yes, sir.

*Q.* For which they are agents?

*A.* Yes, sir.

*Q.* Did you collect the rents of premises 49 Christopher Street in this Borough at any time?

*A.* Yes, sir.

*Q.* During what years did you collect those rents?

*A.* The last nine years.

*Q.* In the year 1904 who paid the rent to you of those premises?

*A.* Who paid the rent?

*Q.* From whom did you collect it?

*A.* Well, that rent, it is very seldom that I got that rent, that rent was generally sent to the office. That is from the store, you mean?

*Q.* Yes, I am speaking of the store at 49 Christopher Street?

*A.* I very seldom got that rent.

*Q.* Did you ever get it?

*A.* Once in a while, yes.

*Q.* From whom did you get it?

*A.* George Walker.

*Q.* From George Walker?

*A.* Yes, sir.

*Q.* From whom did you receive it in the year 1905?

*A.* George Walker.

*Q.* And for the year 1906?

*A.* George Walker.

*Q.* Did you ever receive the rent of these premises from any other person?

*A.* No, sir, not to my knowledge. Of course the check came to the office sometimes, you know, as I say, by mail.

*Q.* You say the rent was most often paid by check?

*A.* By check, yes, sir.

*Q.* Do you know the name signed to the checks which came to the office in payment of the rent?

A. I know the name was Walker but I could not tell the first name.

Q. You know the name was Walker, but that is all you know?

A. Yes, sir.

Q. Now, do you know who it was in the office of Woodcock & Britt who negotiated the lease of these premises to these tenants?

A. No leases.

Q. It was a monthly tenancy?

A. Yes, sir, it was a monthly tenancy.

Q. A verbal lease?

A. Well, his receipt always read, let for one month only.

Q. Well, who rented the premises to this tenant Walker originally?

A. That I could not tell you.

Q. You do not know what member of the firm it was?

A. No, sir, I could not tell you that.

Q. How many clerks or assistants are in the office of Woodcock & Britt?

A. Four.

Q. Four altogether?

A. Yes, sir.

Q. Were there four in 1904?

A. Yes, sir.

Q. Are they the same persons now as then?

A. Yes, sir.

Q. Who is it that usually deals with the tenants in the office?

A. Well, Mr. Woodcock is generally in the office, he is the inside man.

Q. Do you know the character of the business that is carried on in the shop at 49 Christopher Street?

A. Well, there was a carpenter shop there, there was a lamp concern there and there was a soap business.

Q. Do you know who represented the lamp concern?

A. I know a man by the name of John McGuire repre-

sented them—not the soap concern, the Star Lamp Company; he is still interested in that.

*Q.* Do you know who represented the soap concern?

*A.* I could not tell you, I saw Mr. George Walker at one time, he was making soap, or working at it anyhow at one time when I was there.

*Q.* Well, do you know what kind of soap was manufactured by that concern?

*A.* I could not tell you.

*Q.* You do not know?

*A.* I did not ask him.

*Q.* You did not see any of their signs?

*A.* No.

*Q.* Or their advertisements?

*A.* No, I did not.

*Q.* Do you know what name was on the door of that shop?

*A.* On one side was Thomas Boyce's name, Carpenter & Builder.

*Q.* Yes?

*A.* That was there in the beginning.

*Q.* Any other name?

*A.* Well, afterwards the Star Lamp Company had it.

*Q.* Did you ever see the name Walker on those premises?

*A.* No, sir.

*Q.* You are positive of that?

*A.* I am positive of that, yes, sir.

*Q.* At no time at all?

*A.* No, sir.

JOHN EGAN, called as a witness, being duly sworn, testified as follows:

*Examined by Commissioner MITCHEL:*

*Q.* Mr. Egan, what is your business?

*A.* Lumber dealer.

*Q.* What is your place of business?

A. West Twenty-fourth Street, 609 to 615.

Q. In the course of your business have you had occasion to sell lumber to the City of New York?

A. Yes, sir.

Q. Do you regularly receive orders from the City of New York for lumber?

A. Not what I would call regularly, occasionally.

Q. Well, have you ever received monthly orders?

A. Yes, sir, I have.

Q. That is blanket monthly orders?

A. Well, I would not call them blanket orders, the orders specified what was to be delivered, the amount and the description of lumber.

Q. I mean orders reading, all lumber needed or that may be required by the Bureau of Public Buildings and Offices or by the buildings of the City for a given month.

A. I do not think the orders ever read that way to the best of my memory; they may possibly, but I do not remember that they have done so. I think the orders always have specified the number of feet and the description of the lumber. I am pretty sure that that is correct. Still I may——

Q. You would not be positive?

A. I would not be positive, but to the best of my memory.

Q. Now, Mr. Egan, did you ever sell any lumber to one Thomas A. Tydings?

A. Yes, sir.

Q. When?

A. Oh, I have sold him lumber, let me see, for a year or two to the best of remembrance. I will tell you, you have given me a very scant notice of this matter, I did not receive the subpoena until probably about four o'clock yesterday afternoon, and it is a very busy time with me, and in fact after I received the subpoena I did not have an opportunity or time for to think over these matters in any shape or form, and I had to neglect my business to come down here this morning.

*Q.* Well, Mr. Egan, you say you sold lumber to Tydings for the last year and a half or two years, is that right?

*A.* I think so, for a year anyway.

*Q.* You may keep books of account, don't you?

*A.* Sir?

*Q.* You keep books of account, don't you?

*A.* Oh, yes.

*Q.* Those books would show those sales, would they not?

*A.* Yes, sir.

*Q.* Now, your subpoena this morning called for the production of those books. Have you got them with you?

*A.* No, I have not got them; as I say I did not have an opportunity to attend to anything, the time is so short since I received the subpoena.

*Q.* When did you receive the subpoena?

*A.* About four o'clock yesterday afternoon.

*Q.* Was there not time between four o'clock yesterday afternoon and this morning at ten thirty to bring those books of account?

*A.* Not at the present time.

*Q.* Why not, Mr. Egan?

*A.* Well, I have been fortunately of late very busy and I have been trying to fill all my orders as quickly and as promptly as possible, though I have had a very poor winter, and now I am trying to make hay while the sun shines, and it has took me all my time since I received the subpoena to attend to that.

*Q.* Well, you understand the nature of a subpoena, don't you?

*A.* Oh, yes, it means that you are to appear where you are summoned.

*Q.* And when such documents are called for in this form of subpoena you know that you are bound to produce them, do you not?

*A.* I have no desire not to obey that subpoena.

*Q.* Now, Mr. Egan, if I excuse you now, when can you have those books of account here?

*A.* Oh, I can have them down Monday.

*Q.* Oh, no, I will have to have them to-day?

*A.* You put me to a great deal of inconvenience to have them to-day.

*Q.* I know, Mr. Egan, but the City of New York has been put to considerable inconvenience in this matter, and we cannot consider to so great an extent the convenience of the witness in every case. I understand you may be put to some inconvenience in the matter, but I will have to ask you to produce the books this afternoon. What time could you have them here?

*A.* Probably about three o'clock.

*Q.* What is to prevent your having them here—where is your office, Mr. Egan?

*A.* 609 West Twenty-fourth Street.

*Q.* Well, now, what is to prevent your having them here within two hours?

*A.* If my bookkeeper has yesterday's work written up I can do it.

*Q.* Well, if he has not got the work written up we will receive the books in the condition they are in now without writing them up. In fact, the Commission directs you to produce the books as they stand to-day without writing up or entry of any kind, we want to see the books as they stand to-day.

*A.* Yes, but Mr. Commissioner have you a right to do that?

*Q.* Yes, sir?

*A.* To neglect my daily business?

*Q.* Yes, sir?

*A.* To prevent me from writing up my daily business that was done yesterday? I ask you with all due respect, you know.

*Q.* Yes, Mr. Egan, we have the right to ask you to do that?

*A.* Well, it is very——

*Q.* I will excuse you until two o'clock, and ask you to go up to your office and have the books here at two o'clock. You can take a cab down and charge it to the Commission, and I will send a messenger up with you. Mr. Egan, have you ever sold lumber to the firm of Boyce & Lynch?

*A.* I think I have.

*Q.* Would your books of account show those sales?

*A.* Oh, yes.

*Q.* Have you ever sold to one Michael H. Lynch?

*A.* No.

*Q.* When did you make the sales of lumber to the firm of Boyce & Lynch?

*A.* I think it was back in 1904.

*Q.* In 1904?

*A.* I think so, I am pretty sure of it.

*Q.* Have you ever sold lumber to the firm of Walker Brothers?

*A.* I think I sold one little lot of lumber, about, oh, I do not know, it was a small amount, I cannot remember exactly how much it was.

*Q.* Have you ever sold any lumber to William H. Walker?

*A.* Not personally, no.

*Q.* Not personally?

*A.* No.

*Q.* Well, in what way have you sold any lumber to him?

*A.* Only as Superintendent of Public Buildings and Offices.

*Q.* That is representing the City?

*A.* Yes.

*Q.* That is you were not selling to him, you were selling to the City?

*A.* Well, he was the Superintendent and he signed the orders.

*Q.* But you have never made any sales to him personally?

A. No, sir. I say never, well, yes, a great many years ago, probably twenty-eight or thirty years ago.

Q. But not since then?

A. No, not since he has filled this position that he occupies at present.

Q. Well, that is you have not made any sales to him within the last six years, is that correct?

A. Yes, sir, no more.

Q. Well, could you say that you had not made any sales to him within the last ten years?

A. Personally, yes, sir.

Q. I mean in his personal capacity?

A. Yes, sir.

Commissioner MITCHEL—I think in order to give the witness ample time to be back at two o'clock we will excuse him.

The WITNESS—Make that two thirty, Mr. Commissioner, please.

Commissioner MITCHEL—Yes, I will make it two thirty.

The WITNESS—Thank you. Then, I will be down here with the books at two thirty.

Adjourned to 2 P. M.

After recess.

LOUIS DUTOIT, called as a witness, being duly sworn, testified as follows:

*Examined* by Commissioner MITCHEL:

Q. Mr. Dutoit, what is your business?

A. Marble manufacturer.

Q. Where is your place of business?

A. 220 West Fifty-first Street.

Q. 220 West Fifty-first Street?

A. Yes.



Q. Is that next door to Walker Brothers' lumber yard?

A. Yes.

Q. Are you acquainted with Thomas A. Tydings?

A. Well, acquainted and not acquainted, when I see him I speak to him, that is about all.

Q. I mean you know him by sight?

A. I know him by sight, yes.

Q. Mr. Tydings has had a place of business at 218 West Fifty-first Street, has he not?

A. I don't know whether that is his place, I don't know, I see Walker on it.

Q. Did you ever see Mr. Tydings go into that building?

A. Many times, yes.

Q. Now, did Mr. Tydings get permission from you to put a sign up on the front of your shop?

A. Not on the front, inside, in the office.

Q. Inside?

A. Yes.

Q. Wasn't there a sign in the window?

A. There was a sign on the window, yes.

Q. He got permission from you to put that up, didn't he?

A. Yes.

Q. When did he get permission from you to put that sign up?

A. Well, I couldn't remember it no more, just exactly when, but according to my recollection it must have been about a year already.

Q. Might it not have been two or three months ago?

A. No, sir.

Q. You can swear to that?

A. Yes.

Q. That it was a year ago that he got permission?

A. Not positive, I wouldn't swear it was a year, but pretty near a year.

Q. What did he tell you when he asked to put that sign up?

A. Well, he says, "I want to get my sign up and then I shall get an office in there."

Q. Has he got a desk in your office?

A. No.

Q. Never has had, has he?

A. No.

Q. Just a sign?

A. Just a sign.

Q. Mr. Tydings had a sign on the building 218 West Fifty-first Street also, didn't he?

A. I don't know that.

Q. Well, your place of business is right next door, isn't it?

A. Yes, I don't take attention to that, I go right in my shop.

Q. Did you ever see the sign Walkers Brothers on the building next door?

A. In big letters, yes.

Q. Well, wouldn't you naturally also see any other sign on that building?

A. No, there was no other sign.

Q. You didn't see any other?

A. No.

Q. Do you know that there wasn't any other?

A. I don't know nothing about it, I didn't see any.

Q. There might be one, but you didn't see any?

A. I don't know, I can't tell.

Q. Did Mr. Tydings pay you rent?

A. Pay me rent?

Q. Yes?

A. No.

Q. Might it have been as lately as six months ago that he got permission to put that sign up?

A. I can't just exactly remember that. We are talking about a year and a half ago to put that on and then dragging along and dragging along and putting it up.

Q. Then he put it up later?

A. Yes.

*Q.* Did Mr. Tydings ever come into your shop?

*A.* Yes.

*Q.* Ever do any business in your shop?

*A.* Once in a while he come there and talks business, yes.

*Q.* He talked?

*A.* Yes.

*Q.* What business did he do in your shop, Mr. Dutoit?

*A.* What did he do, what business did he do?

*Q.* Yes?

*A.* Talked about carpenter business.

*Q.* To whom?

*A.* I don't know the man he was talking to.

*Q.* People who came in?

*A.* Yes, the man who come in.

*Q.* How often did you see that?

*A.* I guess about three or four times, because I am not always in the office.

*Q.* Three or four times since he has had the sign there?

*A.* Yes.

*Q.* Did you ever tell anybody that Mr. Tydings had never been in your shop to do any business?

*A.* What do you say?

*Q.* Did you ever say to anybody that Mr. Tydings had never been in your shop to do any business?

*A.* I never said that, no.

*Q.* Did you ever talk to anybody about Mr. Tydings having that sign in your shop?

*A.* To nobody.

*Q.* Do you remember talking to anybody about two months ago and telling him that Mr. Tydings had just asked permission to put that sign up but never did anything else?

*A.* Maybe, maybe.

*Q.* You may have told someone that?

*A.* Yes, maybe, yes.

*Q.* Well, if you told him that it was true, wasn't it?

*A.* What?

*Q.* If you told him that, it was true, wasn't it?

*A.* Yes, I think so, yes.

*Q.* Well, which is true, what you say here or what you told him?

*A.* Well, I say over a year and a half ago I was talking about putting the sign on the window.

*Q.* That is not what I am asking you about. You told this man (indicating Mr. Beecherer) that Mr. Tydings had just asked permission to put that sign there, but he never came in and did any business?

*A.* Well, I don't think I say that, I say that he put a sign there; maybe I say that, but I never say he do any business.

*Q.* Do you remember telling that man (indicating Mr. Beecherer) Mr. Tydings always had his office in 218 and that he never came into your shop at all?

*A.* No, I don't think I ever said that.

*Q.* Are you willing to swear and stand by that statement?

*A.* Yes. I am positively sure.

*Q.* You are perfectly certain about that?

*A.* Yes.

*Q.* Just a minute ago you were not certain.

*A.* Of what?

*Q.* Well, I asked you that question a moment ago and you said you might have said it to him.

*A.* Put that sign on?

*Q.* No, I asked you if you recollected ever having said to anybody about two months ago that Mr. Tydings had just asked permission to put the sign up but had never come into your shop to do any business?

*A.* Maybe I told him that, yes, to get permission for that sign, but I never told him he never do any business, I am positive and swear about that.

*Q.* You didn't say that to this man (indicating Mr. Beecherer) about two months ago?

*A.* Well, I don't think—I don't recollect him at all.

*Q.* Well, will you swear you did not say it?

A. What?

Q. Will you swear you did not say so?

A. I would not swear that; I say that Tydings put that sign on, that he got permission to put that sign up, that is positively so.

Q. You did say that?

A. Yes.

Q. And did you also say he never came into your shop to do any business?

A. I don't think I ever say that.

Q. But you won't be sure, will you?

A. No, I wouldn't swear.

Q. You would not swear you did not?

A. Because I got no interest in nothing.

Q. I hope not. Are you willing to swear now that he did come into your shop to do business?

A. Well, I say before that he was in my shop and talked to business men, yes.

Q. You are willing to swear to that?

A. Yes.

Q. That is just about three or four times?

A. Yes.

Q. Do you know what he talked about?

A. I don't know, I don't know what he is talking about.

Q. How do you know he talked business then?

A. He was talking about building, that is all.

Q. You heard him talking about building?

A. That is all.

Q. Do you know who the other men were?

A. No, I don't know.

Q. Haven't any idea who they were?

A. No.

Q. You don't know whether Mr. Tydings had an office in 218 West Fifty-first Street, do you?

A. I don't know, I see him many times in.

Q. You don't know whether he had his office there?

A. No.

*Q.* Did you ever tell this man (indicating Mr. Beecherer) that he had an office in 218 West Fifty-first Street?

*A.* I don't think I ever tell him that.

*Q.* Did you ever tell it to anybody else?

*A.* I don't know that, because I don't know that he had got an office at all, because he has got no signs there at all.

*Q.* You didn't say it to this man (indicating Mr. Beecherer) and another man about two months ago?

*A.* I don't know.

*Q.* You may have?

*A.* I don't remember that.

*Q.* But it is possible you did say so, is it?

*A.* I am not positive.

*Q.* Haven't you seen Tydings up there almost every day?

*A.* When I come over there once in a while, yes.

*Q.* When did you see him there last?

*A.* I think I saw him maybe over a couple of days ago.

*Q.* A couple of days ago?

*A.* On the street, that is all.

*Q.* When did you last see him going into 218 West Fifty-first Street into Walker Brothers' lumber yard, about two days ago?

*A.* I guess I saw him yesterday going in there.

*Q.* You saw him yesterday going in there?

*A.* Yes.

*Q.* When before that, that you can recollect?

*A.* Well, he go in there all the time.

*Q.* He goes in every day?

*A.* Certainly.

*Q.* And has been doing that the last year, has he not?

*A.* So long as I know him there.

*Q.* In there every day?

*A.* Yes.

*Q.* You saw him yesterday?

*A.* Yes.

*Q.* Didn't Mr. Tydings tell you when he asked you permission to put his sign up there that he just wanted to keep the sign there because he did not want to have it on the other property, didn't he say that?

*A.* Maybe he did, but I would'nt swear on that.

*Q.* Do you recollect ever telling anybody he said that?

*A.* No, I don't know anything about that.

*Q.* Well, might you have told anybody that?

*A.* Because I don't remember.

*Q.* You don't recollect having said to this man——

*A.* Maybe I would say that, yes, but I am not positively sure about that.

*Q.* But it is just possible you did say so?

*A.* Maybe.

*Q.* Now did Tydings give you any reason why he wanted permission to hang his sign on your place?

*A.* Not at all.

*Q.* He didn't say anything?

*A.* No.

*Q.* Did he say anything to you when he asked you for permission to put his sign up about not wanting to have his sign on Walker Brothers' lumber yard, because it didn't look well?

*A.* Maybe he said that, too, yes.

*Q.* Mr. Dutoit, all the witnesses have to sign these depositions after they have been reduced to writing and read to them. You will have to do that.

Commissioner MITCHEL—John Egan.

(No response.)

Commissioner MITCHEL—Note the fact that Mr. Egan's name was called at 2:38 p. m. and he failed to appear in answer to his name.

W. D. LOUDON, recalled for further examination, testified as follows:

*Examined* by Commissioner MITCHEL:

*Q.* Mr. Loudon, have you procured from the files of the Finance Department vouchers for the bills of Michael H. Lynch?

*A.* I have, yes, sir.

*Q.* In the year 1904?

*A.* 1904, yes, sir.

*Q.* I show you voucher No. 8,531, series A of Manhattan, 1904. Is that one of them?

*A.* Yes, sir.

The voucher was received in evidence and marked Exhibit No. 190, May 10th, 1907, C. B.

Commissioner MITCHEL—The stenographer will note that on the face of Exhibit 190 appears “Michael H. Lynch, 49 Christopher Street.”

*Q.* Mr. Loudon, I show you vouchers Nos. 11,518, 17,068, 20,159, 24,952, 29,763, 33,922, 36,907, 46,545, 29,762, 33,921, 36,908, 46,049, 48,216, and 11,044, all but the last named being series A Manhattan, 1904, and the last being series A Manhattan, 1905, and ask you if those are vouchers representing bills of Michael H. Lynch for carpentry work?

*A.* They are, they are the original vouchers from the file of the Finance Department.

The vouchers were received in evidence and marked Exhibits Nos. 191 to 204, inclusive, respectively, May 10th, 1907, C. B.



JOHN EGAN, recalled for further examination, testified as follows:

*Examined by Commissioner MITCHEL:*

*Q.* Mr. Egan, have you brought your books of account?

*A.* Yes, sir, I brought down the ledger and sales books to show all the transactions that occurred between Boyce and Tydings and Lynch, I think——

*Q.* Boyce & Lynch?

*A.* Boyce & Lynch.

*Q.* And Tydings?

*A.* And Tydings?

*Q.* And yourself?

*A.* Yes, sir.

*Q.* Will you submit those to the examination of the Commission, please, or to Mr. Scudder as chief accountant to the Commission?

*A.* Yes, sir.

*Q.* Can you remember when the first transactions between you and the firm of Boyce & Lynch occurred?

*A.* I think it was in 1904.

*Q.* In 1904?

*A.* Yes, I would have to look at the ledger to see what month it was. You mean Boyce & Lynch?

*Q.* Yes, Boyce & Lynch?

*A.* Yes.

*Q.* And you say, I believe, that you never had any dealings with Michael Lynch personally?

*A.* No.

*Q.* Well, now, how large were your dealings with the firm of Boyce & Lynch?

*A.* I would have to look at the ledger, Mr. Commissioner. I don't think it ever exceeded, to the best of my memory, \$300 a month.

*Q.* About \$300 a month?

*A.* I don't know as it would average that, sometimes it might be a little more, and sometimes less, and more often less than more, but I can refer to the account there

that will show you just exactly what the amounts were monthly. I always post my sales book every month, so that at the end of the month the ledger shows just the amount of sales for each month.

*Q.* Now, can you tell us how large your transactions have been with Thomas A. Tydings?

*A.* I think it was Tydings' account I had in mind when I said three or four hundred dollars a month. I think Tydings's account ran a little more than Boyce & Lynch. Would you allow me to refer to the ledger so I could give a correct answer?

*Q.* I am not binding you to these answers, I merely ask you approximately?

*A.* On the whole I think my dealings with Tydings were somewhat more than my dealings with Boyce & Lynch.

*Q.* Well now, if I recollect, you said this morning you also sold some lumber to Walker Brothers?

*A.* Yes, they ran short in their stock and they asked me if I had it.

*Q.* And of course those items will appear in the books also?

*A.* Oh, yes.

*Q.* Did you ever make any sales to Boyce & Lynch or Tydings through Walker Brothers?

*A.* No.

*Q.* Always directly?

*A.* Always directly.

*Q.* How did Boyce & Lynch pay you?

*A.* I think by cash, sometimes by check, I think, but principally by cash. I wasn't very anxious to go very deep and I went a little careful.

*Q.* What banks or bank were those checks that they sometimes paid drawn on?

*A.* That I cannot tell you, Mr. Commissioner, I don't know.

*Q.* Do you know who signed them?

*A.* That I don't remember.

*Q.* But you are sure there were some?

*A.* Oh, there were some checks, yes.

*Q.* Now, Mr. Egan, where was the lumber delivered which you sold to Boyce & Lynch? We are talking only of Boyce & Lynch.

*A.* Different jobs. The sales book will show there they were delivered.

*Q.* Did you ever deliver them at their shop?

*A.* Oh, yes.

*Q.* You have delivered lumber at their shop?

*A.* Oh, yes, at Christopher Street, I think.

*Q.* 49 Christopher, is that right?

*A.* I don't know the number, but Christopher Street at all events.

*Q.* Now, from Mr. Tydings—how has Mr. Tydings paid you, the same way?

*A.* How is that?

*Q.* How has Mr. Tydings paid you for the lumber he bought?

*A.* Same way.

*Q.* That is, sometimes by cash and sometimes by check, is that right?

*A.* Yes.

*Q.* You are quite sure of that?

*A.* Quite sure of it, yes. I know he gave me—yes, sometimes cash and sometimes check.

*Q.* Do you know what banks his checks were drawn on?

*A.* No, sir, I couldn't tell you that.

*Q.* You can't remember that?

*A.* I don't remember. In fact it is something I very seldom notice on a check, what bank it is drawn on, as long as I know the parties I am dealing with.

*Q.* Do you know who signed those checks Mr. Tydings paid you by?

*A.* That I don't remember.

*Q.* Well, have you anyone in your office who makes the deposits for you in your bank?

A. Yes, sometimes I do and sometimes my son makes it, and sometimes the bookkeeper makes it.

Q. Well now, do you think either your son or your bookkeeper would be able to tell us who signed any of those checks?

A. No, because I wrote up the checks in the check book on the stub when I go to make a deposit, and it is something that I prefer to handle myself in preference to either my son or my bookkeeper, but sometimes they do when I am not there.

Q. You enter them up on the stubs of your check book?

A. Yes, sir.

Q. Do you enter up the name of the person who drew the check?

A. No.

Q. Or from whom it was received?

A. From whom it was received, I know the name of the person who has an account on my books, showing that that account has been paid either by cash or by check.

Q. But if some other person drew the check you would not enter it on the stub of the check book?

A. No, sir, I only recognize the name of the party on my book that I had an account with.

Q. Now where did you make deliveries of the lumber that Mr. Tydings bought, can you recollect that?

A. Not without looking—in fact, the delivery part, one of my sons has charge of the yard and he takes the orders and sends the lumber out, but at the same time whenever the lumber is delivered, we always mark it on the margin of the sales book, so I can see by the sales book where the lumber was delivered to.

Q. Have you the sales book here?

A. Yes.

Q. Will you just indicate which one of those books is the sales book?

A. I brought down two sales books and two ledgers

in case you wanted to go back to the commencement of my dealings with either one of those parties.

*Q.* Will you just indicate which one of those sales books covers Mr. Tydings' dealings with you?

*A.* This one here. This is the sales book that has Mr. Tydings' account in, and I find I delivered some lumber to the Everett House, Chelsea Court and some other places.

*Q.* Do you find that you delivered any lumber at Mr. Tydings' shop?

*A.* I didn't know he had a shop.

*Q.* You didn't know he had a shop?

*A.* No, I didn't know whether he was down there in Christopher Street or not.

*Q.* Well now, when you send Mr. Tydings a bill where do you send it?

*A.* Now you have got me; I would have to find out from the bookkeeper. Probably my son knows. (After conferring with person in room) 49 Christopher Street.

*Q.* You send bills to Mr. Tydings at 49 Christopher Street?

*A.* Yes, sir. That is the only address we have had on the book, he may have changed it, but he didn't notify us of the change.

*Q.* When did you last send him a bill that you can recollect?

*A.* I will see what the last month's sales were. The last lumber he bought was February, 1907, amounting to \$32 for the month.

*Q.* That is the last lumber he bought of you?

*A.* Yes, unless he has been buying some this month, which I do not believe he has.

*Q.* Mr. Egan, you did not sell him anything then during the month of March?

*A.* No, if I did it would be on the sales book. It is not on the sales book—wait a moment. Yes, sir, I haven't sold him anything since the end of February, he has bought nothing in March.

*Q.* You haven't sold him anything since the month of February?

*A.* No.

*Q.* What was it you sold him in the month of February? I think you said about \$32 worth of lumber?

*A.* \$32 worth of lumber, yes.

*Q.* Well, roughly, how many feet of lumber would that be?

*A.* Well, it would depend, I might send him out 100 feet of lumber that would cost him \$90, I might send him 100 feet of lumber that would cost \$25. It depends on the quality and description of the lumber.

*Q.* What is 100 feet of  $\frac{7}{8}$ -inch pine worth?

*A.*  $\frac{7}{8}$ -inch?

*Q.* Yes?

*A.* That depends, Mr. Commissioner, on the quality. I have pine that I sell as low as \$35, and I have pine, inch pine, that I sell as high as  $12\frac{1}{2}$  cents, you see it depends on the quality of the lumber, with the prices in between those two extremes.

*Q.* What would 150 feet of  $3\frac{1}{2}$  flooring be?

*A.* Well, we have No. 1—we have different grades of that. The best quality of that lumber would be about 4 or  $4\frac{1}{2}$  cents a square foot.

*Q.* And how low might it be?

*A.* It goes down to what we call under flooring, which would cost about \$32 or \$28.

*Q.* Per thousand?

*A.* Yes.

*Q.* If a man rendered you a bill for 100 feet of  $\frac{7}{8}$  inch pine and put a price, you would not know whether that price were right or wrong without knowing more about the pine, would you?

*A.* Without seeing the lumber.

*Q.* Then a bill rendered in that way would not show whether the man were getting lumber at a reasonable price, or not, would it?

*A.* It is supposed the man who receives the lumber is a judge of the quality.

*Q.* Yes, but the bill itself would not show, would it?

*A.* Oh, yes. We will specify——

*Q.* If you merely get a bill for 100 feet of  $\frac{7}{8}$ -inch pine, so much, you might be getting a quality of pine worth the amount charged in the bill and you might not, as far as the bill shows?

*A.* That is right, from the bill I couldn't tell it. Mr. Commissioner, if I am not interrupting, I wish to correct a statement I made to you this morning. You asked me if I received blanket orders.

*Q.* Yes, that is true?

*A.* I was laboring under a wrong impression. There is the order for each month that I received (producing paper), but after receiving that, then I receive orders specifying the amount and quality of the lumber to be delivered on that order. Now I did not know these orders came to me for the supply for the whole month.

*Q.* This is the form of order you always get, is it not?

*A.* Yes, sir.

The paper produced by the witness was received in evidence and marked Exhibit No. 205, May 10, 1907, C. B.

Commissioner MITCHEL—Exhibit No. 205 is as follows:

“President, Borough of Manhattan,

Office Commissioner of Public Works.

1321 Park Row, New York.

May 1st, 1907.

John Egan:

Please furnish and deliver to Bureau P. B. & O., chargeable to Bureau of Public Buildings and Offices, supplies and repairs, including public baths, and comfort stations, 1905”—1907 written in with a rubber stamp—“such supplies of lumber, etc., for use of the carpenters employed in this Bureau as

may be required and ordered during the month of May, 1907, to be furnished to the satisfaction of the President of the Borough, for and on account of the President of the Borough of Manhattan, and send bill in triplicate and this order and the receipt attached to form No. 1802, Offices Commissioner of Public Works.

"I certify to the necessity of the above work or supplies and that the expenditure therefor has been duly authorized and appropriated. A certificate of the necessity of the above expenditure was placed on file in this Department before the expenditure was incurred.

John F. Ahearn, President of the Borough.

William Dalton, Commissioner of Public Works.

Requisition 536, April 30th, 1907."

In typewriting "William H. Walker, Superintendent."

*Q.* That is the form of order that you get every month?

*A.* Yes, sir.

*Q.* And then pursuant to that order orders are issued to you for specific supplies?

*A.* Other orders are issued to me according as they require the lumber or different kinds of lumber.

*Q.* Now, to go on with the subject on which I was examining you before. 150 feet of  $3\frac{1}{2}$  flooring does not indicate the quality of the lumber, does it?

*A.* The way you read it there it does not indicate the quality.

*Q.* I am going to read you off a number of items——

*A.* That is the customary way, though, Mr. Commissioner, that lumbermen make out their bills.

*Q.* I am going to read you a number of items, Mr. Egan, and ask you what the approximate value of the lumber that appears by these items would be: 100 feet of  $\frac{3}{4}$ -inch pine, 150 feet of  $3\frac{1}{2}$  flooring, 350 feet of  $\frac{3}{4}$ -inch



pine, 250 feet of  $\frac{7}{8}$ -inch pine, 250 feet  $\frac{1}{2}$  pine, 100 feet  $3\frac{1}{2}$  flooring, 200 feet of  $\frac{7}{8}$ -inch pine, 75 feet of  $\frac{1}{2}$ -inch pine, 450 feet of  $\frac{7}{8}$ -inch pine, 375 feet of  $\frac{1}{2}$ -inch pine, 100 feet of  $2\frac{1}{2}$  maple flooring, what do you think the approximate value of those items would be?

A. I could not give the slightest idea.

Q. Now do you suppose all those items were covered by your last sale of lumber to Mr. Tydings?

A. That all those were covered in the last sale?

Q. Yes?

A. Not during the month of February, I don't think.

Q. Well, now, the lumber——

A. I don't think my books show that quantity of lumber for the month of February. That may be included in two months, January and February. I don't know where you got this from, or whether that is a bill, but that might include two months of supplies that I gave to him.

Q. You say you have always delivered these supplies you sold Mr. Tydings at the job?

A. Usually, yes.

Q. Now did you deliver anything in January or February in the nature of 100 feet of  $\frac{7}{8}$ -inch pine, and 150 feet of  $3\frac{1}{2}$  flooring to the First District Court of this Borough?

A. In the month of February?

Q. In the months of January, February or March, and if so, when?

A. In January there was no flooring, no pine lumber delivered during the month of January.

Q. How about February?

A. February, there was some,  $\frac{7}{8}$ —— $2\frac{1}{2}$  Yellow Pine flooring.

Q. Delivered where?

A. Children's Court.

Q. I asked you for the First District Court?

A. No, sir.

Q. None delivered there?

A. No, sir. I don't know whether Mr. Tydings buys all his lumber off of me or not.

Q. Of course, you would not know that. Was there any delivered there in March or April?

A. No, the last account I have in here is in February, so evidently he has not bought anything off me during the month of March. If he did I would have it here in the sales book.

Q. Anything in the nature of 350 feet of  $\frac{7}{8}$ -inch pine delivered during January or February to the Second District Court?

A. No, sir.

Q. Anything in the nature of 250 feet of  $\frac{7}{8}$ -inch pine or 200 feet of  $\frac{1}{2}$ -inch pine, and 100 feet of  $3\frac{1}{2}$  flooring delivered during those months at the Harlem Court?

A. No, sir.

Q. 200 feet of  $\frac{7}{8}$ -inch pine, 75 feet of  $\frac{1}{2}$ -inch pine, delivered during those months to the Fifty-fourth Street Court?

A. No, sir, not by me.

Q. Well, of course that is what I am asking. 450 feet of  $\frac{7}{8}$ -inch pine, 375 feet of  $\frac{1}{2}$ -inch pine, 100 feet of  $2\frac{1}{2}$  Maple flooring delivered during those months or subsequent at the Harlem Court Building?

A. No, sir.

Q. Mr. Egan, will you turn to your account in your books showing your sales to the City for the month of March?

A. This year?

Q. Of this year?

A. 1907?

Q. Yes. First tell me before you turn to that, how do you deliver lumber sold to the City?

A. I deliver it by truck.

Q. Well, do you deliver it on the job or at yards?

A. Sometimes the job and sometimes over to the County Court House.

Q. The County Court House?

A. County Court House, carpenter shop.

Q. Are those the only two places, to the carpenter shop at the County Court House and on the job?

A. Yes, that is right.

Q. Will you turn to your account for the month of March and tell us what your sales to the City were for the month of March?

A. What month is that, Mr. Commissioner?

Q. March, 1907?

A. What was the question, please?

Q. Read me the items of lumber you sold to the City and where delivered.

A. You want me to read them off?

Q. Yes, if you please?

A. On March 7th there was 1,000 feet of 1 inch by 12 inches white wood delivered to the County Court House, also 1,000 feet of  $\frac{5}{8}$  by 12 by 16 pine shelving, that also was delivered to the County Court House. Same date, 1,000 feet of  $\frac{1}{2}$ -inch by 10 inches and up clear panel pine, dressed on two sides, delivered to the same place. On the 12th of March there was 192 feet of 3 by 4 by 16 foot spruce delivered to the County Court House. On the same date, there were 35 pieces of 2 by 3 by 13 feet spruce, dressed on four sides, County Court House.

On the 27th of March there was 1,500 feet of  $\frac{5}{8}$  by 12 pine shelving dressed two sides, delivered to the County Court House.

On the 30th there were 242 feet of inch and one-eighth by 4 spruce flooring delivered to Jefferson Market.

Q. Are those all the sales to the City in that month?

A. During that month, yes, sir.

Q. Well now, will you tell us what sales you made to the City in the month of February?

A. February of this year?

Q. Yes.

A. On February 18th, delivered to the County Court House, 1,200 feet of  $\frac{5}{8}$  by 12 pine shelving, dressed four

sides. On the same date, 520 feet of  $\frac{7}{8}$  by  $9\frac{1}{2}$  tongued and grooved pine shelving, delivered at the same place. Same date, six pieces of 2 by 3 spruce, dressed four sides. Now that has not a mark on that, that ain't marked, Mr. Commissioner, but I presume it went to the same place, because it is the same date, and I presume it went to the County Court House.

On the 25th, 192 feet of  $\frac{7}{8}$  by 12 by 16 feet shelving, dressed four sides, to the Sixtieth Street baths. On the same date 75 feet of 3 by 12 spruce. That I think went to the same place, because it is not marked, to the Sixtieth Street Bath. 12 pieces of 2 by 3 spruce, dressed four sides, to the same place.

On the 26th there was 1,000 feet of  $\frac{7}{8}$  by 12 shelving, that is all dressed that I sent there, but the book don't specify it, but it is always dressed that went to the County Court House. 1,000 feet of  $\frac{1}{2}$ -inch by  $3\frac{1}{2}$  No. 1 N. C. ceiling, County Court House. 1,500 feet of  $\frac{7}{8}$  half round, County House.

*Q.* Well all the sales made in February were for deliveries made either to the County Court House or the Sixtieth Street Baths?

*A.* Yes, sir.

*Q.* And all the sales made in March were for deliveries to the County Court House?

*A.* No, I think in March one went to Jefferson Market.

*Q.* One went to Jefferson Market?

*A.* Yes, sir, that is the last item, on the 30th.

*Q.* Well now, Mr. Egan, will you turn to your account showing sales to Mr. Tydings during the month of February and will you read us what you sold him?

*A.* Yes, sir. During the month of February?

*Q.* Yes?

*A.* Month of February, on February 8th, 40 pieces of 1 by 2 spruce.

*Q.* How many feet does that represent?

A. How many feet?

Q. Yes?

A. Well, in each piece there is two and one-sixth feet. They are 1 by 2 by 13 feet long, that is  $2\frac{1}{6}$  square feet. On the 13th there was 55 feet of  $\frac{7}{8}$  by  $2\frac{1}{2}$  yellow pine flooring. On the 15th there were 200 pieces of 1 by 2 spruce. Those were 12 feet.

Q. 12 feet altogether?

A. No, I mean they were 1 by 2 by 12, 200 pieces, 1 by 2 by 12 feet long.

Q. You do not enter up the total number of feet?

A. Those we sell by the piece. 12 foot I have charged up  $6\frac{1}{2}$  cents, and the next entry is 200 pieces of 1 by 2 by 13 at 7 cents apiece, a foot longer in length.

Q. That is all for the month of February. Now, Mr. Egan, did you sell Mr. Tydings during that month any of the following items: 200 feet  $\frac{7}{8}$ -inch by 12 pine?

A. No, sir. Do you mean during the month of February?

Q. During the month of February?

A. No, sir.

Q. 150 feet of 1 by 3 pine?

A. No, sir.

Q. 400 feet of 2 by 9 spruce?

A. No, sir.

Q. 150 feet of 2 by 4 spruce?

A. No, sir.

Q. 300 feet of  $\frac{7}{8}$  by  $3\frac{1}{2}$  Y. P. flooring?

A. No, sir.  $\frac{7}{8}$  by  $3\frac{1}{2}$ .

Q.  $\frac{7}{8}$  by  $3\frac{1}{2}$  Y. P. flooring?

A. No, sir.

Q. 400 feet  $\frac{7}{8}$  by  $3\frac{1}{2}$  Y. P. flooring?

A. No, sir.

Q. 600 feet by  $\frac{7}{8}$  matched partition?

A. No, sir.

Q. 175 feet of 2 by 4 spruce?

A. No, sir.

Q. 100 feet of  $\frac{7}{8}$ -inch pine?

A. No, sir.

Q. 200 feet of  $\frac{7}{8}$ -inch pine?

A. No, sir.

Q. 300 feet of  $\frac{1}{2}$ -inch pine?

A. No, sir.

Q. And you say that all deliveries made to Mr. Tydings are made on the job or at the job?

A. Yes. I do not see anything here——

Q. Will you tell us where the delivery of those items you sold him in February were made?

A. In February there is one item here marked Everett House, Children's Court, and one 218 West Fifty-first Street.

Q. What was the delivery at 218 West Fifty-first Street?

A. The 400 pieces of 1 by 2 spruce.

Q. This was made in February?

A. Yes, sir.

Q. Of 1907?

A. Yes, sir.

Q. Did you deliver anything to the Comptroller's Office in the Stewart Building?

A. In February?

Q. Yes?

A. No.

Q. Did you deliver anything to West Washington Market?

A. No.

Q. Did you deliver anything to Gansevoort Market?

A. No.

Q. Did you deliver anything to the Criminal Courts Building?

A. No. Do you mean for Tydings?

Q. Yes?

A. No.

Q. Did you deliver anything to the Criminal Courts Building for the City that month?

A. No.

*Q.* Now will you turn to your sales to Mr. Tydings during January, 1907, and tell us what those sales were?

*A.* He had on January 30th, 80 pieces of 1 by 2 by 10-foot spruce. Same date he had 10 pieces of inch-and-a-quarter by 3 by 13-foot spruce.

*Q.* Delivered where?

*A.* That is not marked; it don't say where they were delivered.

*Q.* Neither one?

*A.* No, neither one. On the 31st he had 50 pieces of 1 by 2 by 12-foot spruce delivered at West Fifty-first Street, no number, and on the same date he had 50 pieces of 1 by 2 by 13-foot spruce.

*Q.* Delivered where?

*A.* Delivered at the same place, West Fifty-first Street.

*Q.* This was in January, 1907?

*A.* Yes, sir.

*Q.* Did Mr. Tydings buy from you during January, 1907, any of the following items: 600 feet of 1½ by 3 spruce?

*A.* Well, he bought 10 pieces, that would be only about 50 feet.

*Q.* That would be only 50 feet?

*A.* Yes.

*Q.* Did he buy 300 feet of 7/16 by 3 ceiling?

*A.* No, sir.

*Q.* 400 feet of 7/8 by 3 spruce?

*A.* No, sir.

*Q.* 300 feet of 7/8-inch half-round moulding?

*A.* No, sir.

*Q.* 100 feet of 7/8-inch pine?

*A.* No, sir.

*Q.* 100 feet ½-inch pine?

*A.* No, sir.

*Q.* 300 feet of 7/8 by 12 pine?

*A.* No.

*Q.* 200 feet of ½ pine?

*A.* No, sir.

*Q.* 300 feet of  $\frac{3}{8}$  by  $3\frac{1}{2}$  flooring?

*A.* No.

*Q.* 100 feet 3 by 4 spruce?

*A.* No.

*Q.* 400 feet of  $\frac{1}{2}$ -inch pine?

*A.* No, sir.

*Q.* 300 feet of  $\frac{1}{2}$ -inch pine?

*A.* No, sir.

*Q.* 300 feet of  $\frac{1}{2}$  oak?

*A.* No, sir.

*Q.* 60 feet of 3-inch oak caps?

*A.* No, sir.

*Q.* 70 feet of  $1\frac{1}{2}$  moulding?

*A.* No, sir.

*Q.* 130 of 3 oak—is there such a thing as a pilaster?

*A.* Yes, 3-inch pilaster.

*Q.* 3-inch oak pilaster?

*A.* Oh, yes, there is such a thing, but he didn't buy it off of me.

*Q.* Now, will you turn to your sales to Mr. Tydings during the month of December, 1906?

*A.* I haven't any account for Mr. Tydings for December, 1906.

*Q.* Didn't sell him anything during December, 1906?

*A.* No. The previous month—the month previous to January, 1907, was May, 1906, unless they got the accounts mixed with Boyce & Tydings. I will look that up.

*Q.* See if you sold Boyce & Lynch anything in December, 1906?

*A.* Boyce & Lynch? Well, I will see what I sold Boyce & Tydings; it might be in that account.

*Q.* Have you a Boyce & Tydings account?

*A.* Yes, but I think that was a mistake; I think that was a mistake made through this young man over here (indicating), I am pretty sure it was. We were uncertain about the name of the firm at that time. It was Boyce & Lynch, and then we understood Mr. Lynch wasn't there, that Mr. Tydings come in, and we were under the



impression that it was Boyce & Tydings, but I was told afterwards that it was an error, that it should have been Mr. Tydings alone.

*Q.* How did you find out that was an error?

*A.* I think Mr. Tydings told us that Mr. Boyce had nothing to do with it.

*Q.* When did he tell you that?

*A.* I cannot say.

*Q.* Can't recollect?

*A.* No, I can't recollect.

*Q.* Was it this year or last year?

*A.* Oh, it was last year.

*Q.* Last year?

*A.* Yes.

*Q.* Early or late last year?

*A.* I think it was early last year to the best of my recollection.

*Q.* He told you that early last year. Will you see if you have any sales to Boyce & Tydings in December of last year?

*A.* No. The last time I have Boyce & Tydings is April, 1906, that is the last item. That is Boyce & Tydings, but it should be Tydings.

*Q.* Then you have no sales to Mr. Tydings in December of 1906, is that right?

*A.* Yes, sir. Will you allow me to look at Boyce & Lynch?

*Q.* Certainly, look at Boyce & Lynch?

*A.* I want to get that straight. No, sir, nothing in December, 1906, for any of those firms.

*Q.* Now, Mr. Egan, what sales did you make during the month of November, 1906, to Mr. Tydings?

*A.* I don't think I made any. Month of what?

*Q.* November?

*A.* I have nothing charged up to Mr. Tydings between May, 1906, and January, 1907.

*Q.* Nothing between May, 1906, and January, 1907?

*A.* That is right. Let me look at my ledger, that will

tell the story better (referring to ledger). That is right, Mr. Commissioner, nothing between May, 1906, and January, 1907.

*Q.* Well, now, what sales did you make to him during the month of May?

*A.* 1906?

*Q.* Yes, during the month of May, tell us what you sold him then?

*A.* Evidently I made only one sale, that was on the 25th day of May, 1906.

*Q.* What was that?

*A.* 108 feet of 6 by 6 spruce, 67 feet of 4 by 8 spruce, 100 feet of 4 by 12 yellow pine, and cartage. It doesn't say where that was delivered, nothing marked on the margin.

*Q.* That was all you sold him during May?

*A.* May, 1906; yes, sir.

*Q.* Did you sell any of the items I am about to read you?

*A.* May, 1906?

*Q.* Yes. 100 feet of  $\frac{1}{8}$  good pine?

*A.* No, sir.

*Q.* 50 feet of  $\frac{1}{2}$  by  $3\frac{1}{2}$  pine?

*A.* No, sir.

*Q.* 100 feet of  $\frac{1}{8}$  quarter round moulding?

*A.* No, sir.

*Q.* 150 feet of  $\frac{1}{8}$  pine shelving?

*A.* No.

*Q.* 100 feet of  $\frac{1}{2}$  pine shelving?

*A.* No.

*Q.* 100 feet of  $\frac{1}{8}$  by  $3\frac{1}{2}$  yellow pine flooring?

*A.* No.

*Q.* 200 feet by  $\frac{1}{8}$  by  $4\frac{1}{2}$  partition?

*A.* No.

*Q.* 150 feet of  $\frac{1}{8}$  pine shelving?

*A.* No.

*Q.* 75 feet of  $\frac{1}{2}$  pine?

*A.* Of what?

Q.  $\frac{1}{2}$  pine.

A. No.

Q. 100 feet of  $\frac{7}{8}$  by 2 maple flooring?

A. No.

Q. 300 feet of  $\frac{7}{8}$  good pine?

A. No.

Q. 400 feet  $\frac{1}{2}$  pine?

A. No.

Q. 250 feet of pine shelf?

A. No.

Q. 200 feet of  $\frac{7}{8}$  pine shelving?

A. No.

Q. 100 feet of  $\frac{1}{2}$  pine?

A. No.

Q. 375 feet quartered oak?

A. No.

Q. 150 feet of oak moulding?

A. No.

Q. You did not sell him any of those items in May, 1906?

A. No.

Q. Well, now, will you tell us, Mr. Egan, what you sold him during April of 1906?

A. I might have sold Boyce & Tydings, but not Tydings. As I say, it might be under that wrong name.

Q. Tell us then what you sold to Boyce & Tydings or Boyce & Lynch or Boyce, and please tell us in each case where the delivery was made.

A. What month was that, Mr. Commissioner?

Q. April of 1906?

A. Yes, I sold Boyce & Tydings April, 1906.

Q. But nothing to Mr. Tydings personally, is that right?

A. No.

Q. Then, tell us what you sold to Boyce & Tydings during April of 1906?

A. 325 feet of 2 by 3 spruce. 541 feet  $2\frac{1}{2}$  by 4 hem-

lock. 368 feet of 3 by 8 spruce. 40 pieces of 1 by 2 spruce.

*Q.* Where were these deliveries made?

*A.* These were all delivered to West Fifty-first Street. 193 feet of 3 by 6 spruce. Cartage \$1.

*Q.* Is that all?

*A.* No. There is 216 feet of  $2\frac{1}{2}$  by 4 hemlock. 163 feet of 2 by 3 spruce. 60 pieces of 1 by 2 spruce. 552 feet of 3 by 8 spruce.

*Q.* All delivered at——

*A.* West Fifty-first Street.

*Q.* I am going to read you over again the items I read you a moment ago?

*A.* For April, 1906?

*Q.* Yes. And ask you if any of these items appear in that account as having been sold to Mr. Tydings in the month of April, 1906?

*A.* 1906?

*Q.* Yes, you testified a moment ago these items were not sold to him in May, and I am going to ask you if they were sold to him in April. 100 feet of  $\frac{7}{8}$  good pine?

*A.* No, sir.

*Q.* 50 feet  $\frac{1}{2}$  by  $3\frac{1}{2}$  pine?

*A.* No, sir.

*Q.* 100 feet of  $\frac{7}{8}$  quarter-round moulding?

*A.* No, sir.

*Q.* 150 feet of  $\frac{7}{8}$  pine shelving?

*A.* No.

*Q.* 100 feet of  $\frac{1}{2}$  pine shelving?

*A.* No.

*Q.* 100 feet of  $\frac{7}{8}$  by  $3\frac{1}{2}$  yellow pine flooring?

*A.* No.

*Q.* 200 feet of  $\frac{7}{8}$  by  $4\frac{1}{2}$  partition?

*A.* No.

*Q.* 150 feet of  $\frac{7}{8}$  pine shelving?

*A.* No.

*Q.* 75 feet of  $\frac{1}{2}$  pine?

*A.* No.

Q. 100 feet of  $\frac{7}{8}$  by 2 maple flooring?

A. No.

Q. 300 feet by  $\frac{7}{8}$  good pine?

A. No.

Q. 400 feet  $\frac{1}{2}$  pine?

A. No.

Q. 250 feet of pine shelving?

A. No.

Q. 200 feet of  $\frac{7}{8}$  pine shelving?

A. No.

Q. 100 feet of  $\frac{1}{2}$  pine?

A. No. That is for April, 1906.

Q. Yes. 375 quartered oak?

A. No.

Q. 150 feet oak moulding?

A. No.

Q. So those items you sold him neither in April or May, 1906?

A. No, sir; but this April is, as I say, Boyce & Tydings, but whether Boyce had any right to have his name entered in the firm, I don't know.

Q. But the items I have read you were not sold to either Boyce or Tydings?

A. Neither to Boyce & Tydings or to Tydings, neither one.

Q. Were any of the items I am about to read you sold to either Tydings or Boyce & Tydings in April, 1906, 3,000 feet  $\frac{7}{8}$  by 10 pine?

A. No.

Q. 1,500 feet  $\frac{7}{8}$  by 12 pine?

A. This is April, 1906?

Q. Yes?

A. No.

Q. 500 of  $\frac{1}{2}$  by 12 good pine?

A. No.

Q. 200 feet of 2 by 9 spruce?

A. No.

Q. 150 feet of 2 by 4 spruce?

A. No, sir.

Q. Will you see if any of those items were sold to him in March of 1906?

A. What you have read off to me now?

Q. Yes?

A. I sold him 218 feet of  $\frac{5}{8}$  quartered oak.

Q. Of what,  $\frac{5}{8}$  quartered oak?

A. Yes.

Q. I didn't read you that item?

A. I think you read that before. It might be  $\frac{1}{2}$ -inch quartered oak, because it is  $\frac{5}{8}$  before it is planed.

Q. I read you an item of 375 feet of quartered oak from the former bill?

A. Well, I have got in the month of March, 1906, I have charged here 218 feet of  $\frac{5}{8}$  quartered oak.

Q. Any others?

A. There is 300 feet of  $\frac{1}{2}$ -inch oak ceiling in the month of March, 1906.

Q. Yes, any other?

A. There is 310 feet  $\frac{1}{2}$ -inch by 12 to 14 inch white wood.

Q. That does not appear here?

A. It may be possible that some of those items I may have charged in March, maybe, in either of those papers you have for the month of April. There is 960 feet of  $\frac{3}{4}$  by 12 dressed shelving, and there is also some 2 by 4 spruce that you asked me about a while ago in the month of March.

Q. But all these items which I just read you, 3,000 feet of  $\frac{3}{4}$  by 10 pine, 1,500 feet of  $\frac{3}{4}$  by 12 pine

A. Well, I have 960 of  $\frac{3}{4}$  by 12 pine here, on the 21st of March.

Q. On the 21st of March?

A. Yes.

Q. Where was that delivered?

A. Barclay Building, I think it is.

Q. That is right?

A. There are four items delivered to the Barclay Building.

Q. Will you read those four items?

A. Yes, sir. 960 feet  $\frac{7}{8}$  by 12 dressed shelving. 310 feet of  $\frac{1}{2}$ -inch white wood. 300 feet of  $\frac{1}{2}$ -inch oak ceiling. 218 feet of  $\frac{5}{8}$  quartered oak, all delivered to the Barclay Building.

Q. All for the Barclay Building?

A. Yes, and then there was some delivered to the Criminal Court that month.

Q. Now, did you deliver to the Barclay Building that month 3,000 feet of  $\frac{7}{8}$  by 10 pine?

A. Wait a moment, Mr. Commissioner. Oh, yes, I made a mistake, that is not all I delivered during the month of March, part is on this page and part on this page (indicating).

Q. See if you find 3,000 feet of  $\frac{7}{8}$  by 10 pine delivered to the Barclay Building March or April?

A.  $\frac{7}{8}$  by 10?

Q. Yes?

A. There is 2,638 of  $\frac{7}{8}$  by 10 shelving delivered to the Barclay Building during the month of March.

Q. Of  $\frac{7}{8}$  by 12?

A.  $\frac{7}{8}$  by 10.

Q. How much of the  $\frac{7}{8}$  by 12?

A. 960 feet.

Q. Did you deliver 1,500 feet of that?

A. Of  $\frac{7}{8}$  by 12?

Q. Yes?

A. No, but I delivered over 1,500 of  $\frac{7}{8}$  by 10, that I have included in that——

Q. You delivered all together 2,800 feet of  $\frac{7}{8}$  by 10, is that right?

A. 2,638 feet.

Q. Of  $\frac{7}{8}$  by 10?

A. Yes, sir.

Q. And you delivered all together 900——

A. 960 feet of  $\frac{7}{8}$  by 12.

*Q.* But you did not deliver 3,000 of  $\frac{3}{8}$  by 10 and 1,500 of  $\frac{3}{8}$  by 12, did you?

*A.* That is all I have on my books, 2,638 of the 10-inch and 960 of the 12.

*Q.* Did you deliver 938 of  $\frac{1}{2}$ -inch by 12?

*A.* Of  $\frac{1}{2}$ -inch by 12?

*Q.* Yes?

*A.* Not during March, not during the month of April, not during the month of February, neither February, March or April.

*Q.* Did you deliver 200 feet of 2 by 9 spruce there or anywhere else to Mr. Tydings during March or April or to Boyce & Tydings?

*A.* 2 by 9?

*Q.* 2 by 9 spruce?

*A.* I delivered 2,340 feet of 2 by 9 spruce, dressed two sides, tongued and grooved for partition.

*Q.* Where?

*A.* 238 South, I presume that is South Street.

*Q.* But you did not deliver it to the Barclay Building, did you?

*A.* The Barclay?

*Q.* Yes?

*A.* No. I have no charge of that description for the Barclay Building. I have got some 2 by 10 spruce that went to South Street.

*Q.* Mr. Egan, I do not want to keep you here all night going over these bills, and if you will agree to allow one of our men to take a transcript of these accounts from your books of Tydings, Boyce & Lynch, and Lynch, we need not go any further in this part of the examination?

*A.* You mean to leave the books here?

*Q.* Yes, to make a transcript of them.

*A.* I would rather you send a man up to my office, because I am liable to want those books. You can have the privilege of a desk there.

*Q.* We can give you the books by to-morrow afternoon, otherwise I think we will have to go ahead with the examination now?



A. All right, if you give me my supper money I am satisfied, and cab hire.

Q. What book is this, Mr. Egan (handing book) ?

A. That is an index book for the sales book.

Q. How long has this book been in use ?

A. I have had it a long time. I think there is an index there for three or four sales books. You will notice there is sales book No. 9 and No. 10 and No. 11, I think.

Q. Can you say how far back in years this book goes ?

A. Wait a minute and I can give you an idea. It goes back a long ways, I know. We are very economical up there, because there ain't much money in the lumber business. This sales book ends in 1903, and I think that is sales book No. 10, and I think there is an index there for sales book No. 9.

Q. Can you say approximately what year ?

A. That that goes back to ?

Q. Yes ?

A. Let me look at it a moment. No. 9, I think this goes back to 1901, Mr. Commissioner.

Q. Who keeps these books, Mr. Egan ?

A. My son used to keep them until within the last six months.

Q. Within the last six months ?

A. Yes, since then I have a young man keeping them.

Q. Now, then, on that page will you tell me what that erasure under the index for W is, and why it was made ?

A. What book ? You mean this at the bottom ?

Q. This one right here. What was originally written there and what was erased and why ?

A. That is Whitmer & Son.

Q. What was written there before that was ?

A. I think that was there originally and he crossed that out and made it cash sales.

Q. Why was the name erased and Whitman written in ?

A. I see he has a memorandum here "No. 9 to be opened." This erasure has no relation whatever to any of

those parties you are inquiring about. I have an account or did have an account with Whitman and Sons and that looks like Whitmer. Oh, now I understand it.

*Q.* What is it?

*A.* A man we used to sell to for cash, and they started to open an account for them and instead of opening an account they put it in to cash sales.

*Q.* So his name was erased and written in again?

*A.* We started to write in the name and open an account for him in the sales book. This is the index of the sales book. He started to open an account for him and found he was a cash sale man, that is, paid cash on delivery.

*Q.* Then what was done?

*A.* That is the reason the words "cash sales" was put in afterwards in explanation of it.

*Q.* Then it was crossed out by a pen?

*A.* Yes, red ink pen.

*Q.* I am asking why something was scratched out before that name was written in. You can see there is an erasure?

*A.* I think he tried to scratch out Whitmer's name after we found we weren't going to open an account for him. The possibility is he tried to erase Whitmer's name so as to put somebody else's name in.

*Q.* And then wrote Whitmer's name in again?

*A.* No.

*Q.* It is written there very plainly now, isn't it?

*A.* It is very plain there, but what I presume is that he put in Whitman's name to open an account for him in the sales book and started to index that in here, and finally as we were going to treat him as a cash customer, then he tried to erase it after writing it in, and stopped and put the word cash sale in explanation of why this was made.

*Q.* You think that accounts for all that scratching on that paper?

*A.* Yes. But the accounts that you were after are leg-

ible therein that index book under each heading, Boyce & Lynch, Boyce & Tydings and the different names.

*Q.* Well, now, Mr. Egan, what book is this (handling book) ?

*A.* That is a sales book.

*Q.* Now, is this page 318 the page at which the account of Thomas A. Tydings appears ?

*A.* 318 ?

*Q.* This is his account, is it ?

*A.* That is his account, that is one we started to charge up to him personally, but as I say, before that we charged to Boyce & Tydings, which I am pretty sure was a mistake.

*Q.* Now, will you explain to us why there was an erasure there and Mr. Tyding's name written in over the erased place ?

*A.* Where ?

*Q.* Right on the heading of the account, Mr. Tyding's name ?

*A.* That I don't know, I can't tell you, sir. That I don't know, unless he started in to open an account for somebody else and then put in Tyding's name instead of him.

*Q.* There must have been some other name written there, scratched out, and Tyding's name put in ?

*A.* Yes, it shows some other name was written there, but what it was for I don't know. I gave them instructions to use up the books as close as possible.

*Q.* Beyond that you cannot account for an erasure there in the writing in of Mr. Tyding's name on that account ?

*A.* No, I cannot.

*Q.* (Handling book). Well, now, what book is this, Mr. Egan ?

*A.* That is the ledger.

*Q.* Now, is this Mr. Tyding's account on page 399 ?

*A.* Yes, that is Tydings' account.

*Q.* Now, can you explain why the erasure occurred

there and Mr. Tydings' name was written in over the erased space?

A. There is no erasure there, Mr. Commissioner.

Q. You do not find there is an erasure there and the name written in over the erased space?

A. There seems to be some dirt there, there is something around the letter A, and a part of the Thomas, but whether that occurred from something that fell on it—it looks to me as though some moisture fell on the paper while the ink was damp or when he was writing it in, it don't look to me like an erasure.

Q. How often do you look at these books, Mr. Egan?

A. Not very frequently, not very often lately.

Q. You cannot explain that apparent erasure any better than that?

A. No, I cannot. I would not call that an erasure, in my judgment. It looks more as though the paper was moist, got wet somewhere, and when the name was written, caused the ink to spread.

Commissioner MITCHEL—Mr. Stenographer, will you mark that page 318 of the sales book in evidence.

Page 318 of the sales book was received in evidence and marked Exhibit No. 206, May 10th, 1907, C. B.

Commissioner MITCHEL—Now, mark the ledger page 399.

Page 399 of the ledger was received in evidence and marked Exhibit No. 207, May 10th, 1907, C. B.

Q. Now, Mr. Egan, can you explain in any way why Mr. Tydings' name seems to have a fatality about it that makes the signature rather dim in both of these cases?

A. I could not tell you.

Q. Well, now, will you look at the ledger, the index of T, look at Mr. Tydings' name, the first on the page, and explain the appearance of erasure there?

A. Well, it certainly looks kind of bad, Mr. Commissioner, but I will still say that don't look like an erasure to me.

Q. Does that look like new ink to you, Mr. Egan?

A. The ink certainly is different in color from the one below.

Q. Mr. Egan, where were these books while you were here testifying this morning?

A. In my office.

Q. And you say you do not examine these books yourself very often?

A. No, very seldom, very seldom now; I used to.

Q. Could changes be made in the names appearing on these books without your knowledge?

A. I don't think any names would be changed without letting me know of them.

Q. Well, what I mean to ask you is——

A. I don't think my bookkeeper would do any changing or any alterations without letting me know it.

Q. Yes, probably you have confidence in your bookkeeper, but what I ask you is, would it be possible for changes to be made in these names, and those changes escape your notice?

A. Oh, yes; you will find that there are errors there where the book has been scratched and altered, that I have seen myself; every bookkeeper is liable to make a mistake. I have examined them myself and I have seen in turning over the account sometimes there has been a mistake made and the entry was scratched and altered.

Commissioner MITCHELL Mark the ledger index for T in evidence.

The page was received in evidence and marked Exhibit 208, May 10th, 1907, C. B.

The WITNESS—I think probably I could show you some of them in there now where there has been scratching done and alterations made to errors.

Q. Look at the index page of the ledger of letter W and will you explain why Wilkins & Clark and Clark & Wilkins written in?

A. Evidently he put the cart before the horse there, it should be Clark & Wilkins instead of Wilkins & Clark.

Q. Why was there an erasure before the mistake was made of writing Wilkins & Clark?

A. Well, there I can't see any erasure either.

Q. Will you look at the paper immediately above the line and see whether you think there was an erasure?

A. Yes, I am looking at the whole thing. I can't see any.

Q. You can't see any evidence of scratching on that paper?

A. No, sir; I can't.

Q. How long have you had the account of Wilkins & Clark?

A. Oh, I have had it some time.

Q. Well, can you say how long?

A. I think three or four years.

Q. Three or four years?

A. Yes, sir.

Commissioner MITCHEL—Mark this page in evidence, index W.

The page was received in evidence and marked Exhibit No. 209, May 10th, 1907, C. B.

The WITNESS—Maybe longer than that.

Q. But you have had it that long?

A. Yes.

Q: The same mistake, writing the wrong name, as was made on page 464 of the ledger, isn't it, in the case of Wilkins & Clark?

A. Yes, evidently.

Q. Now, you say you have had that account four or five years. Will you explain why the ink is so fresh in the case of the writing of Wilkins & Clark there?

A. Well, now, can you distinguish ink being fresh, will you please tell me? I can't.

Q. Do you think that does not look fresh to you?

A. No, I couldn't tell whether that was written within the last half hour or the last five years from the appearance of it.

Q. You think it looks no fresher than that ink above it?

A. It is a different colored ink, but we have different colored inks in the office and always have.

Commissioner MITCHEL—Mark page 464 in evidence.

Page 464 was received in evidence and marked Exhibit No. 210, May 10th, 1907, C. B.

The WITNESS—I have some jet black ink and some blue black ink, commercial ink and copying ink.

Q. Now, you said you had made some sales to Walker Brothers?

A. Yes.

Q. Why doesn't the name of Walker Brothers appear in this ledger?

A. I think it is, isn't it?

Q. It may be, Mr. Egan. Where is it?

A. It may be in the other one. I know I made one sale to them, whether I made more than that, I don't know. It may be that I didn't think it worth while to open an account for them.

Q. Well, Mr. Egan, will you look at your index of sales under T and tell me whether you think the name of Thomas A. Tydings appears to have been newly written there?

A. There is some pencil writing under it.

Q. Yes, what is it?

A. The pencil writing reads "Commercial Twine Company." I don't see anything there that would lead me to infer it is fresh ink.

*Q.* Can you explain why the name Tydings, T. A., was written over Commercial Twine Company?

*A.* I can, I guess.

*Q.* Well, what?

*A.* That Commercial Twine Company is another name for the Travers Brothers Company, and I believe, to the best of my recollection, there was a change in the name of the firm and we were going to open an account under the heading of Commercial Twine Company. That is my writing, that Commercial Twine Company is.

*Q.* Is the T. A. Tydings your writing?

*A.* No, and I suppose then they left the account go under the head of Travers Brothers Company.

*Q.* Whose writing is that, Mr. Egan?

*A.* That is the bookkeeper's.

*Q.* Your bookkeeper's?

*A.* Yes.

*Q.* Whose writing was it in the case of the other instance where Thomas A. Tydings' name has been written on your book?

*A.* I didn't notice.

*Q.* Well, I will go back. But before going back, is that the only explanation you can make of Tydings' name being written over that.

(The witness then used an eraser on the book.)

*Q.* Oh, don't rub it out?

*A.* Yes, I will.

*Q.* It looks a good deal better now?

*A.* Yes, a good deal better.

*Q.* Can you make any explanation of that as it appeared just before you rubbed it out?

*A.* It is the same yet. Do you mean to infer that pencil writing underneath was something in connection with this name here (indicating). I say no positively.

*Q.* I am asking you a question?

*A.* I have explained it, that the name of the Travers Brothers Company was supposed to be changed to the Commercial Twine Company.



Q. Yes?

A. That being my writing, I wrote that in there in pencil for the bookkeeper. I presume this is the explanation, because that is what the words were, Commercial Twine Company, and I suppose I wrote it in there so they would change the name from Travers Brothers Company to Commercial Twine Company.

Q. That is very plain, but what I ask you is how the name Tydings, T. A., came to be written over that?

A. Because that had nothing whatever to do with it, that pencil writing was put in there merely as a memorandum. I can write a memorandum here, I can write you a name there in pencil, and to-morrow the bookkeeper may go to work, knowing that is of no service whatever, and index the account there, with the name of an account. Now, that is just the condition of that.

Q. You don't think that this name, Tydings, T. A.; appears to be newly written?

A. No, I don't see anything that would lead me to infer that. It is written with different ink, but as I say, I have different kinds of ink in my office.

The page was received in evidence and marked Exhibit No. 211, May 10th, 1907, C. B.

Q. Can you explain why the name of Thomas A. Tydings also appears to have been written in different ink than the rest of the ledger?

A. That I don't know.

Q. That you cannot explain?

A. No.

Q. Now, whose handwriting is that in which Thomas A. Tydings' name is written on page 399 of your ledger, marked Exhibit 207?

A. That is the bookkeeper's.

Q. That is your bookkeeper's also?

A. Yes.

Q. Whose handwriting is it in which Mr. Tydings' name is written on the index page of your ledger, marked Exhibit No. 208?

A. That is the bookkeeper's.

Q. That is also the bookkeeper's?

A. Yes.

Q. Mr. Egan; I show you your other ledger, page 399, your old ledger?

A. Yes.

Q. Is that the account of William H. Walker appearing there?

A. Yes, there is an account of William H. Walker.

Q. That was his old account, was it not?

A. Yes.

Q. Well, now, can you explain to us the coincidence that Mr. Tydings' account appears also upon page 399 of your ledger?

A. I cannot tell you that.

Q. That is just chance, is it?

A. That is all.

Q. Merest coincidence, is that it?

A. That is all. Is it on page 399, Tydings in the new ledger?

Q. Look?

A. 399, that is a fact. That is a remarkable coincidence. But that is by itself, though.

Commissioner MITCHEL.—The stenographer will mark page 399 of the old ledger in evidence.

Page 399 was received in evidence and marked

Exhibit No. 212, May 10th, 1907, C. B.

Q. Now, Mr. Egan, I will have to ask you to take the account of Boyce & Tydings, beginning at the earliest date at which you sold them lumber, and read us the series of sales that you made to that firm, and then the series of sales you made to Thomas A. Tydings down to the present time, all the items, indicating in each instance where the delivery was made?

A. Boyce & Tydings and Thomas A. Tydings, do you say?

*Q.* First take Boyce & Tydings or Boyce & Lynch, if you have an account of theirs?

*A.* Yes, there is an account of Boyce & Lynch.

*Q.* Well, begin with Boyce & Lynch?

*A.* May, 1905—will I call off each item?

*Q.* Well, if you will please indicate in each case where the delivery was made. What firm is this?

*A.* Boyce & Lynch. May 3d, 1905—

*Q.* Is that the first sale you ever made to them?

*A.* To Boyce & Lynch, yes—no, here is April. The account first was Thomas H. Boyce & Company, and then it was changed to Boyce & Lynch. I will start from the beginning, Thomas H. Boyce.

*Q.* Yes, I wish you would. I want you to go as far back as you have an account with anybody named Lynch, Boyce & Lynch, Boyce & Tydings or Tydings?

*A.* December, 1903, Thomas H. Boyce & Company. On the 3d of December, 512 feet of 3 by 8 spruce. I will call off all the items where they went to the one place, and then state all the previous items went to such and such place. That will expedite it a little. 512 feet 3 by 8 spruce, 60 feet of  $\frac{7}{8}$  by  $4\frac{1}{2}$  pine partition, 396 feet  $\frac{7}{8}$  by  $8\frac{1}{2}$  spruce flooring. That all went to 100 Tenth Avenue.

On the 15th of December, 1903, 608 feet of  $\frac{7}{8}$  by  $3\frac{1}{2}$  No. 1 yellow pine flooring, 84 feet  $\frac{7}{8}$  by 10 No. 1 N. C. pine, 80 feet of  $1\frac{1}{4}$ -inch by 12 N. C. stops, dressed two sides and nose, 200 feet of  $\frac{7}{8}$  quarter-round, 48 feet of  $\frac{1}{2}$ -inch by inch-and-a-half doorstop, 64 feet of  $\frac{7}{8}$  by 9 by 12-inch pine, dressed two sides, 325 feet of  $2\frac{1}{2}$  by 4 hemlock, 10 pieces of 2 by 3 spruce, 10 pieces of 1 by 2 spruce. All the above delivered on the 15th was delivered to 2628 Broadway.

On the 22d, 200 feet of 3 by 10 spruce, 12 pieces of 2 by 4 spruce, 10 pieces of  $1\frac{1}{4}$ -inch by 3 spruce. Those three items were delivered to Laight and Washington Street.

On the 23d, 532 feet  $\frac{7}{8}$  by 4 N. C. partition, 70 feet of  $\frac{7}{8}$  capping, 74 feet of  $1\frac{1}{8}$ -inch half round. Those three items were delivered to 2628 Broadway.

On the 31st, 38 feet of  $\frac{7}{8}$  by 14 dressed shelving, 30 feet of  $1\frac{1}{8}$ -inch half round. The last two items went to the shop.

January, 1904. On the 7th, 260 feet of 3 by 4 spruce, 60 pieces of inch-and-a-quarter by 3 spruce. Those two items were to Laight and Washington Street.

On the 8th, 476 feet of inch-and-a-half pine, ripped and dressed four sides. Went to the shop.

Same date, 24 pieces inch-and-a-quarter by 3 spruce, to Laight and Washington Street.

On the 15th, 266 feet  $\frac{7}{8}$  by inch-and-a-half good pine strips, 62 feet of good half-inch pine, 68 feet of  $\frac{7}{8}$  good pine, 168 feet of  $\frac{7}{8}$  by  $3\frac{3}{4}$  pine. All that pine was dressed two sides—all the above pine was dressed two sides. 150 feet of half-inch by inch-and-a-half stop, 20 pieces of 2 by 3 spruce, dressed four sides. Sawing 40 cut,  $\frac{7}{8}$ , 12 by 16 feet. That all went to shop on the 21st.

*Q.* Where was the shop?

*A.* I presume it was down in Washington Street—not Washington—

*Q.* 49 Christopher Street?

*A.* I presume so, I don't know. That is all for January.

February, 1903. On the 2d of February, 133 feet  $\frac{7}{8}$  by  $9\frac{1}{2}$  pine roofing, 4 pieces of 2 by 4 spruce. Those two items went to Laight and Washington.

275 feet of 3 by 6 spruce, dressed four sides, 9 pieces of 1 by 2 spruce. Went to 186 West Fourth Street.

On the 3d of February, 1904, 104 feet  $\frac{7}{8}$  by  $4\frac{1}{2}$  N. C. flooring, 10 pieces of 1 by 2 spruce. That went to the shop.

On the 4th of February, 92 feet  $\frac{7}{8}$  by  $4\frac{1}{2}$  N. C. flooring, 36 feet  $\frac{7}{8}$  by 5-inch crown moulding. Both these items went to the shop.

On the 5th, 480 feet of 3 by 6 spruce, 433 feet of 2 by 10 spruce. Those two went to Fulton Market.

72 feet of  $\frac{7}{8}$  pine, 20 feet of 5-inch crown moulding. Those two items to shop.

On the 6th, 905 feet of 2 by 10 spruce, Fulton Market.

On the 17th, 960 feet of 3 by 6 spruce, 192 feet of 4 by 6 spruce. Those two items to Fulton Market.

On the 18th, 1,167 feet of 2 by 10 spruce, 630 feet  $\frac{7}{8}$  by 4 N. C. partition. Fulton Market.

March 4th, 227 feet of  $\frac{7}{8}$  by  $9\frac{1}{2}$  pine roofing to shop.

On the 7th, 800 feet of 3 by 10 spruce, 390 feet of 2 by 9 spruce, 132 feet of 3 by 12 spruce, 585 feet of 2 by 9 spruce. All to Laight and Washington.

On the 9th, 38 feet of  $\frac{7}{8}$  by 4 pine partition, shop.

On the 14th, 618 feet of inch-and-an-eighth by  $4\frac{1}{2}$  yellow pine flooring, to Fulton Market.

On the 22d, 66 feet  $\frac{7}{8}$  by 16 dressed shelving, 35 feet by inch-and-a-half by 16 of the same to shop.

On the 29th, 1,167 feet 2 by 10 spruce, Washington Market, and there is a carter's charge on lumber brought back from another job, cartage from Fulton Market to Washington Market.

April, 1904. On the 23d, 171 feet of 2 by 4 spruce, shop.

On the 26th, 20 feet of 2 by 9 spruce, shop; 69 feet of 4 by 9 spruce, shop.

On the 6th, 1,170 feet of 2 by 9 spruce, to Washington Market; charge from Fulton to Washington Market.

On the 13th, 480 feet of 3 by 6 spruce 630 feet of 2 by 9 spruce, 1,170 feet of 2 by 9 spruce. Fulton Market.

May, on the 4th, 667 feet of 2 by 10 spruce, 144 feet of 3 by 6 spruce. Washington Market.

On the 10th of May, 1904, 502 feet of  $\frac{7}{8}$  by 10 and 12-inch dressed shelving, 152 feet half-inch good pine, 205 feet inch-and-a-quarter of the same; dressed two sides, both those items; 156 feet of  $1\frac{1}{2}$ -inch same, dressed two sides. Those four items to the Stewart Building.

On the 11th, 71 feet  $\frac{7}{8}$  good pine, dressed two sides, 54 feet  $\frac{7}{8}$  by  $9\frac{1}{2}$  pine partition, 36 feet  $\frac{7}{8}$  by  $2\frac{1}{2}$  N. C. flooring, 34 feet  $\frac{1}{2}$ -inch N. C. ceiling, 65 feet 3 by 4 spruce, dressed both sides, 8 feet  $3\frac{1}{2}$  wainscot capping. Those six items to No. 65 West Ninety-sixth Street.

On the 13th, 452 feet  $1\frac{1}{2}$ -inch door stops, 48 feet  $\frac{1}{4}$ -inch by  $1\frac{1}{8}$ -inch ash, dressed two sides, 48 feet  $\frac{1}{4}$  by  $1\frac{5}{8}$ -inch ash, dressed two sides, 7 feet of  $1\frac{1}{4}$ -inch by 10 yellow pine stops, 27 feet  $\frac{1}{2}$ -inch by 10 good pine, dressed two sides. Those five items to Ninety-sixth Street.

On the 14th, 750 feet of 3 by 6 spruce, dressed one side, 600 feet of the same, 780 feet 2 by 9 good spruce, dressed one side, 240 feet of 2 by 10 ditto, 426 feet of  $1\frac{1}{4}$ -inch by 9 ditto. Those five items went to the Brooklyn Baths; what part of Brooklyn I don't know.

Now on the 19th, 200 feet of half-inch good pine, dressed two sides, Stewart Building.

On the 20th, 1,333 feet  $\frac{1}{2}$  by 5 by 16-foot battens, Brooklyn Baths.

21st, 1,067 feet 4 by 4 spruce, that is dressed four sides; 400 feet of 3 by 4 ditto, 92 feet of 6 by 8 spruce. Those four items to the Brooklyn Baths.

On the 24th, 756 feet 2-inch pine, ripped and dressed four sides, 749 feet of  $1\frac{1}{4}$ -inch by  $4\frac{1}{2}$  spruce, ripped and dressed four sides. Those two items to Brooklyn Baths.

26th, 30 feet  $\frac{7}{8}$  by 12 dressed shelving, 73 feet half-inch by 18 good pine, dressed two sides. Carting from shop to Ninety-sixth Street. Those three items to West Ninety-sixth Street.

On the 28th, 311 feet of inch-and-a-quarter by  $4\frac{1}{2}$  spruce, dressed four sides, 52 pieces of 3 by 3 by 5 spruce plugs, 331 pieces of  $1\frac{1}{2}$  by 5 by 15 inches spruce wedges. Those three items to baths. It don't say what baths, but I presume it is the Brooklyn Baths.

On the 5th, 500 feet inch-and-an-eighth by 4 spruce flooring, 156 feet 3 by 6 spruce, 52 feet 2 by 4 spruce, 10 pieces one-and-a-quarter by 3 spruce. Those four items to Tompkins Market. 80 feet of 2 by 5 spruce, dressed four sides, 10 pieces of 1 by 2 spruce, to Washington Market.

I think this is the 13th, make it the 13th. Hold on a minute, this is transferred. That was charged to the Department of Buildings when it should have been charged up to Thomas H. Boyce & Company.

*Q.* That is, these three items were first charged to the Bureau of Buildings and later transferred to Boyce & Lynch?

*A.* Transferred to Thomas H. Boyce & Company.

*Q.* Mr. Egan, can you explain——

*A.* Let me finish; there is only three items in this month. 244 feet of inch-and-an-eighth by  $4\frac{1}{2}$  spruce flooring, 159 feet of inch-and-a-half by 12 yellow pine stops, 48 feet  $\frac{7}{8}$  by 12 shelving. Those three items to Tompkins Market.

*Q.* The books show those three items were first charged to the Bureau of Buildings, is that right?

*A.* Yes.

*Q.* And then transferred to Boyce & Lynch's account?

*A.* They were charged to the Bureau of Buildings through an error, through a mistake of billing.

*Q.* How could that mistake arise, that a charge could be made to the Bureau of Buildings that ought to be made to a private firm?

*A.* That I don't know.

*Q.* What connection was there between this private firm and the Bureau of Buildings that might give rise to such a mistake? Is there any explanation of it?

*A.* That I cannot tell, unless—indeed I don't know; I wouldn't make an assertion unless I was sure what I am stating, and I am not sure.

*Q.* Well, there is not any explanation then for the fact that the mistake was made?

*A.* All the explanation I can give you is that the bookkeeper must have charged them into the wrong account and found his error and then charged them in the proper one.

*Q.* Was there anything to suggest to the bookkeeper that a Thomas H. Boyce & Company item ought to be charged to the Bureau of Buildings which gave rise to that mistake?

*A.* I will have to find out from the bookkeeper why that was.

*Q.* Only the bookkeeper could explain it?

*A.* That is all.

*Q.* Is the bookkeeper here?

*A.* No. No, I can't explain that.

*Q.* Go ahead, Mr. Egan?

*A.* Now June, 1904. 4 pieces inch-and-a-quarter by 9 spruce, shop.

June 7th, 90 feet  $\frac{7}{8}$  by  $3\frac{1}{2}$  yellow pine flooring, shop.

On the 9th, 365 feet  $\frac{7}{8}$  by  $3\frac{1}{2}$  No. 1 yellow pine flooring, 65 West Ninety-sixth Street.

14th, 450 feet  $\frac{7}{8}$  by  $9\frac{1}{2}$  pine partition, 78 feet of 3 by 4 spruce. Those two items to Tompkins Market.

18th, 1,037 feet  $1\frac{1}{8}$  by  $1\frac{1}{2}$  yellow pine flooring, 288 feet 3 by 6 spruce, 364 feet 3 by 4 spruce. Those three items to Jefferson Market.



On the 20th, 222 feet  $\frac{7}{8}$  N. C. partition, 52 feet  $3\frac{1}{2}$  capping, 82 feet  $\frac{7}{8}$  quarter-round. Those three items to shop.

On the 28th, 1,000 feet 3 by 10 spruce, 1,060 feet of the same, 10 pieces 2 by 3 spruce. Those three items to 215 East Twenty-first Street.

On the 30th, 522 feet  $1\frac{1}{8}$  and  $4\frac{1}{2}$  yellow pine flooring, 12 pieces 2 by 3 spruce. Those two items to Jefferson Market.

July, 1904. On the 1st, 1,303 feet  $1\frac{1}{2}$  by  $8\frac{1}{2}$  spruce roofing, 4 pieces 1 by 2 spruce, dressed one side, 400 feet by 3 by 10 spruce. Those three items to 215 East Twenty-first Street.

On the 5th, 192 feet 2 by 15 pine, dressed two sides. Sawing five cuts 2-inch pine. Those two items to 215 East Twenty-first Street.

Same date, 282 feet  $\frac{7}{8}$  by  $3\frac{1}{2}$  yellow pine flooring, 270 feet  $\frac{7}{8}$  by 4 N. C. partition, 502 feet  $\frac{7}{8}$  by 12 dressed shelving, 12 pieces 2 by 3 spruce, 104 feet 2 by 4 spruce, 10 pieces 1 by 2 spruce, dressed one side. Those six items delivered at Manhattan Street.

On the 6th, 48 feet 3 by 4 spruce, 15 pieces  $1\frac{1}{4}$  by 3 spruce. Those two items to Bath No. 11.

On the 8th, 212 feet  $\frac{7}{8}$  good pine, dressed two sides, 35 feet 2 by 17-inch ash, dressed one side. Those two items to shop.

On the 13th, 690 feet  $1\frac{1}{2}$  by  $4\frac{1}{2}$  yellow pine flooring, 112 feet  $\frac{7}{8}$  by 8-inch N. C. baseboards, dressed two sides, 108 feet  $\frac{7}{8}$  by 8 pine baseboards, dressed two sides. Those three items to the Jefferson Market.

On July 19th, 230 feet  $\frac{7}{8}$  by  $2\frac{1}{2}$  N. C. flooring, 108 feet  $\frac{7}{8}$  by  $7\frac{1}{2}$  N. C. roofing, 10 feet  $\frac{7}{8}$  by  $2\frac{1}{2}$  N. C. partition. Those three items to 59 Madison Street.

380 feet  $\frac{1}{2}$  by 4 N. C. partition, 60 feet  $\frac{1}{2}$  by  $3\frac{1}{2}$  capping, 60 feet  $\frac{1}{2}$  by  $4\frac{1}{2}$  chair rail, 120 feet  $\frac{1}{2}$  quarter-round. Those four items to 59 Madison Street.

25 pieces 2 by 3 spruce, Jefferson Market.

On the 22d, 360 feet 3 by 6 spruce, 228 feet 2 by 6 spruce, 390 feet 2 by 5 spruce, 373 feet 2 by 5 spruce, 20 pieces of 2 by 9 spruce scaffold plank, 136 feet  $\frac{1}{2}$  by 4 good pine, dressed four sides, 32 pieces 4 by 6 by 22 inches beveled spruce wedges. Those seven items to Sixty-third Street Baths.

On the 26th, 320 feet  $\frac{1}{2}$  by 16 pine shelving, 63 feet  $\frac{7}{8}$  by 4 N. C. partition, 166 feet of  $\frac{1}{2}$ -inch N. C. ceiling, 210 feet  $\frac{1}{2}$ -inch white wood, dressed two sides, 212 feet  $5/16$  by 10 white wood, dressed two sides, 56 feet  $\frac{5}{8}$  by 10 ditto, 108 feet  $1\frac{1}{8}$  by 2 nose and moulding, 106 feet  $\frac{7}{8}$  quarter-round, 78 feet 2-inch base moulding. Those nine items, 70 Manhattan Street.

On the 29th, 1,150 feet  $\frac{1}{2}$  by  $9\frac{1}{2}$  matched shelving, 166 feet  $\frac{1}{2}$ -inch N. C. ceiling. Those two items to Stewart Building.

On the 30th, 63 feet  $\frac{7}{8}$  by 23 by 16 feet white wood, dressed two sides, 88 feet  $\frac{7}{8}$  by 12 and 14 by 16 feet ditto, 112 feet 2-inch base moulding. Cartage from One Hundredth Street to Manhattan Street. Those four items to 70 Manhattan Street. 293 feet of 2 by 9 spruce, Barrow Street; 422 feet  $\frac{1}{2}$  by 12 dressed shelving, Stewart Building. That is all for July.

August, 1904. On the 2d, 262 feet  $1\frac{1}{2}$  by  $4\frac{1}{2}$  yellow pine flooring, Jefferson Market.

On the 3d, 256 feet of the same, Jefferson Market.

On the 13th, 64 feet of quarter-inch good pine, dressed two sides, Stewart Building.

On the 16th, 320 feet  $\frac{1}{2}$  by  $9\frac{1}{2}$  pine roofing, shop.

On the 25th, 114 feet  $\frac{7}{8}$  by 4 N. C. partition, 102 feet  $\frac{1}{2}$ -inch N. C. ceiling, 32 feet  $\frac{7}{8}$  by  $3\frac{1}{2}$  capping, 60 feet  $\frac{7}{8}$  quarter-round. Those four items to Madison Street.

On the 26th, 119 feet  $\frac{7}{8}$  by  $3\frac{1}{2}$  N. C. flooring, 60 feet  $4\frac{1}{2}$  chair rail, 104 feet 2 by 4 spruce; Madison Street, those three items.

September, 209 feet  $\frac{7}{8}$  by 4 N. C. partition, 112 feet  $\frac{7}{8}$  by 12-inch dressed shelving, 142 feet  $1\frac{1}{2}$  by 2 pine nosing and cove. Those three items to Madison Street.

On the 16th, 156 feet 6 by 6 yellow pine, dressed four sides, 78 feet 3 by 6 spruce, dressed four sides, 34 feet 2 by 4 ditto, 317 feet  $7\frac{1}{2}$  pine partition boards. Those four items to 92 James Street.

Same date, 167 feet  $\frac{7}{8}$  by 4 N. C. partition, 102 feet  $1\frac{1}{8}$  by 2 nosing and cove, 59 Madison Street.

On the 27th, 300 feet 2-inch base moulding to Madison Street.

October 13th, 137 feet  $\frac{7}{8}$  good pine, dressed two sides, 29 feet  $1\frac{1}{4}$ -inch ditto, 28 feet of  $\frac{1}{2}$ -inch ditto; shop.

On the 11th, 200 feet  $\frac{7}{8}$  by 10 inches and up of white wood, 200 feet half-inch by 10 and up ditto, 100 feet  $5/16$  by 10 and up ditto; Harlem Court.

November 2d, 17 feet  $1\frac{1}{4}$ -inch by 12 yellow pine, dressed two sides, 6 pieces of  $1\frac{1}{4}$ -inch by 9 spruce, 9 pieces of  $1\frac{1}{4}$ -inch by 3 ditto; 661 Washington Street.

On the 9th, 88 feet  $1\frac{1}{4}$  quarter-round, 1,015 feet  $1\frac{1}{8}$  by  $4\frac{1}{2}$  yellow pine flooring, 156 feet 3 by 4 spruce, 104 feet of 2 by 4 spruce. Those four items to Jefferson Market.

November 23d, 1904, 390 feet of  $1\frac{3}{4}$  by  $8\frac{1}{2}$  spruce flooring, 173 feet of 2 by 4 spruce, 5 pieces 2 by 3 spruce, 5 pieces 2 by 3 spruce, dressed four sides, 66 feet  $\frac{7}{8}$  by  $9\frac{1}{2}$  pine partition, 10 pieces of 1 by 2 spruce, dressed one side. Those six items to the shop.

On the 23d, same date, 43 feet 2 by 4 spruce, dressed four sides, to shop.

December, 1904, on the 1st, 390 feet 3 by 6 spruce, 125 pieces 2 by 9 spruce, 173 feet 2 by 4 spruce. Those three items to Washington Market.

January, 1905, 933 feet 2 by 10 spruce, 130 feet 2 by 4 spruce; Washington Market.

On the 11th, 467 feet of 2 by 10 spruce, 52 feet of 2 by 4 spruce, 72 feet of 3 by 6 spruce, 10 pieces of 1 by 2 spruce, 220 feet of  $1\frac{1}{4}$  quarter-round. Those seven items to Washington Market.

On the 13th, 140 feet  $\frac{1}{2}$ -inch by 12 good pine, dressed two sides, 60 feet  $\frac{7}{8}$  by 10 ditto, 90 feet  $\frac{7}{8}$  by 4 pine partition. Those three items to Stewart Building.

On the 19th, 500  $2\frac{1}{2}$  by 4 hemlock, 212 feet  $\frac{7}{8}$  by  $2\frac{1}{2}$  yellow pine flooring, 210 feet  $\frac{5}{8}$  by 12 dressed shelving, 26 feet  $1\frac{1}{4}$  good pine, dressed two sides. Those four items to Chambers Street.

On the 24th, 106 feet  $\frac{3}{8}$  by 12 panel pine, dressed two sides, 128 feet  $\frac{7}{8}$  by 12 dressed shelving. Those items to the Stewart Building.

February, 224 feet  $\frac{5}{8}$  by  $2\frac{1}{2}$  yellow pine flooring, 222 feet  $\frac{5}{8}$  by 12 good pine, dressed two sides, 170 feet  $\frac{1}{2}$ -inch N. C. ceiling. Those three items to Chambers Street.

On the 10th, 722 feet  $\frac{5}{8}$  by 4 N. C. partition, 224 feet  $1\frac{1}{4}$  by 10 and 12 white pine, dressed two sides, 420 feet  $\frac{5}{8}$  by 12 dressed shelving, 600 feet  $\frac{5}{8}$  by  $9\frac{1}{2}$  matched shelving, 108 feet  $\frac{5}{8}$  by  $3\frac{1}{2}$  capping, 200 feet of  $1\frac{1}{4}$  quarter-round, 40 pieces 1 by 2 spruce furring. Those seven items to Paymaster's Office.

On the 15th, 168 feet  $\frac{5}{8}$  by  $9\frac{1}{2}$  pine roofing, 160 feet  $\frac{5}{8}$  by  $3\frac{1}{2}$  yellow pine flooring. Those two items to the Gansevoort Market.

275 feet  $\frac{7}{8}$  by  $9\frac{1}{2}$  pine partition to shop, 6 pieces 2 by 3 spruce to shop.

On the 16th, 720 feet 2 by 10 spruce, 78 feet 3 by 4 spruce. Those two items to Washington Market. 320 feet  $\frac{7}{8}$  by  $7\frac{1}{2}$  N. C. flooring, 60 feet  $1\frac{1}{4}$ -inch yellow pine stops, dressed two sides; Washington Market.

On the 28th, 25 feet  $\frac{7}{8}$  clear pine, dressed two sides and sawed; shop. Sawing 3 cuts  $\frac{7}{8}$  by 16 feet. That is all of February.

Adjourned to May 13th, 1907, at 10.30 A. M.

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New York, May 13, 1907.

Met pursuant to adjournment.

Present—Commissioners HERTLE and MITCHEL; and Mr. BRUERE.

WILLIAM A. HAWES, called as a witness, being duly sworn, testified as follows:

*Examined* by Commissioner MITCHEL:

Q. Mr. Hawes, what is your business, please?

A. Auditor of the bank.

Q. Auditor of the Greenwich Bank?

A. Yes, sir.

Q. Did you attend this morning by instruction from the bank in answer to the subpoena calling for Mr. Walker's deposit slips?

A. Yes, sir.

Q. Are these the deposit slips of William H. Walker's account in the Greenwich Bank (showing papers)?

A. Yes, sir.

Q. Are these all the deposit slips now in the possession of the bank?

A. So far as I know, they are.

*Q.* The bank has made an examination to find deposit slips, has it not?

*A.* I presume they have.

*Q.* And these are the only ones their examination disclosed as existing?

*A.* As far as I know, yes, sir.

The 43 deposit slips were received in evidence and marked Exhibits 213-A to 213 qq, respectively, May 13th, 1907, C. B.

JOHN EGAN, recalled for further examination, testified as follows:

*Examined by Commissioner MITCHEL:*

*Q.* Mr. Egan, a representative of the office made a transcript from the books on Saturday, did he not?

*A.* Yes, sir, he occupied my office all day long; yes, sir.

MR. BROWNE—Mr. Commissioner, before any further examination is had of the witness Egan, I desire on his behalf to object to any further examination of the witness, and also object to any further inspection of his books, upon the ground that the question as to the power of the Commissioners to conduct this proceeding is now pending before Mr. Justice O'Gorman of the Supreme Court. The whole question has been raised, the question as to the power of the Commissioners to issue subpoenas or to conduct an examination and a decision on that application has not as yet been rendered. We think it is only fair, that it is only proper to respect the status of that matter and to refrain from any further proceeding in this matter until Justice O'Gorman has rendered his decision. Now, in addition to that, my client desires to take the ground that the Commissioners have absolutely no power to further examine him. He repeats the objection that was made on behalf of the witnesses Tydings and McCleery,

that the proceeding is wholly unauthorized. My client complains very bitterly of the treatment which has been accorded to him in this proceeding. He states that his business books, his books of accounts, his books containing entries revealing trade prices and other particulars that are personal to every business man and every business house were revealed here. Now he claims that those entries and the matters contained in those books are entirely foreign to this inquiry and that the Commissioners have absolutely no right to make further investigation into them. He therefore respectfully objects to being further examined and also declines to produce his books.

Commissioner MITCHEL—Counsel, the objection is overruled on the following grounds: First, that the question as to the powers of this Commission having been raised by some person or persons in no way invalidates their powers. Anybody may question the powers of the Commission, but it leaves the powers in exactly the same condition as before they were called in question. Secondly, the powers of the Commission have been called in question in the proceedings to which you refer chiefly upon the ground that there is a lack of power to examine elective officers and those who have been the appointees of elective officers. No one has ever questioned the powers of this Commission to examine witnesses who have had business dealings with the City of New York. This witness, according to his own testimony, has had such business dealings. As far as the objection urged against the production of this witness' books is concerned, it may be a hardship to the witness, but those books show his dealings with the City of New York, and as such it is competent for this Commission to subpoena them and to enforce their production. As far as the hard-

ship to the witness is concerned, the Commission gave the witness the option to leave the books in the possession of the Commissioners until Saturday morning, or to testify verbally on Friday, and then finally excused the witness on the ground that it was a great hardship both to the witness and the Commission to remain any later, on the witness' agreement to permit a transcript to be made from his books on Saturday, which he did. On all those grounds, the Commission overrules the objection.

MR. BROWNE—I assume the Commissioners have an open mind as to their powers to proceed with the examination and that if some proper authority were cited showing that they had no powers to proceed they would suspend further examination. Now my client also complains of the fact that the Commissioners have practically issued an injunction restraining him from making further entries in his books. Now to say that the Commissioners have the power to issue any such injunction as that seems to be startling. Now my client, in addition to that, complained of the fact that the Commissioners practically placed him under arrest on Friday last, although no act of his either justified or warranted that order, and for those reasons he claims that he should not be further examined, and we rest upon the objections we have made.

COMMISSIONER MITCHEL—The witness was instructed to make no entries in his books between the hour of adjournment on Friday morning and the hour of reassembling for the afternoon. Those were the instructions given to the witness; they did not extend beyond those hours.

MR. BROWNE—We are quoting from the record.

COMMISSIONER MITCHEL—If the record so reads, it is a mistake on the part of the Commission.



Mr. BROWNE—That is the feeling my client has been under since the injunction was given to him.

Commissioner MITCHEL—If the witness is under that impression, the Commission desires to correct the impression by withdrawing any such request or injunction.

Mr. BROWNE—So he is at liberty to go on now and continue the entries in his books?

Commissioner MITCHEL—As usual.

Q. Mr. Egan, I want to ask you a few questions as to the meaning of the abbreviations noted on the index page of this transcript?

Mr. BROWNE He objects now you may read your reasons, Mr. Egan.

A. Messrs. Commissioners, I respectfully decline to answer any further questions in this matter, for the following reasons: I have been advised that the Commissioners of Accounts are acting without authority in law in conducting this examination and that they have no right to interrogate me as to my private affairs and business interests or examine my books of account. I respectfully decline to be further examined or submit my private papers and books for their inspection. I am not a public officer and have never been employed by the City of New York. Therefore, I am not amenable or subject to any order, subpoena, direction or command which the Commissioners of Accounts may see fit to make or issue. As far as it has gone, I have done everything to make plain and explicit that my transactions with the City of New York were perfectly honest and honorable, and when I read those articles in the public press on Saturday morning I decided to employ counsel and not to enter any more into this business. I gave up possession of my office to your expert and your typewriter Saturday, I gave him my books; they were at liberty to examine them;

I have done everything to show that my dealings were fair and honorable, but nevertheless my character has been assailed in the papers through—well, I don't know—consequently on those grounds, gentlemen, I refuse to be examined any further.

Commissioner MITCHEL—The Commission instructs the witness that the grounds assigned are insufficient and that the only ground upon which this witness may refuse to answer a pertinent and legal question in this inquiry is that his answer may tend to degrade or incriminate him. Is your refusal based upon that ground?

Mr. BROWNE—No, the witness has already stated——

The WITNESS—Mr. Commissioner, it seems to me since I have been here that the witnesses were considered guilty and that they should prove their innocence. In every other court a man is presumed to be innocent until proved guilty. Here it seems to me the action is just the reverse.

Commissioner MITCHEL—Is your action based upon that ground? Otherwise it is overruled.

Mr. BROWNE—The witness has not based his objection upon that ground; he has distinctly stated the grounds upon which he declines to be examined, and rests upon those grounds.

Commissioner MITCHEL—Those grounds are insufficient.

Mr. BROWNE—Very good. He continues to decline to answer your questions.

Q. Do I understand, Mr. Egan, that you refuse to answer any questions put by the Commissioners on this matter?

A. Yes, sir.

Commissioner MITCHEL—Well, then, the Commission informs you that your refusal to answer constitutes contempt and that you will be reported to the Supreme Court accordingly for action.

Mr. BROWNE—That is all, Mr. Egan, you may retire.

Commissioner MITCHEL—That is all, provided you continue to refuse to answer.

The WITNESS—Oh, I do decidedly, Mr. Commissioner, under the circumstances.

RICHARD P. WHITTLESEY, called as a witness, being duly sworn, testified as follows:

*Examined by Commissioner MITCHEL:*

Q. Mr. Whittlesey, what is your business?

A. I am assistant to Mr. Scudder.

Q. How long have you been assisting Mr. Scudder in his business?

A. About two months.

Q. Did you under instructions received from Mr. Scudder go to the office of Mr. John Egan on West Twenty-fourth Street on Saturday?

A. I did.

Q. For what purpose?

A. To take a transcript of sales books Nos. 10 and 11 of certain accounts.

Q. Well, what accounts were they?

A. The accounts of Thomas H. Boyce & Company, Boyce & Lynch, Boyce & Tydings and Thomas A. Tydings.

Q. Did you take such a transcript?

A. I did.

Q. Is this the transcript?

A. That is the transcript.

Commissioner MITCHEL—The transcript is received in evidence.

Mr. BROWNE—The counsel for the witness Egan objects to the introduction of that transcript in evidence, upon the grounds that the Commissioners had no power to make the extracts of the book.

Commissioner MITCHEL—Counsellor, you are not representing any witness on the stand now.

Mr. BROWNE—Only so far as the testimony refers to Mr. Egan.

Commissioner MITCHEL (continuing)—And therefore I am afraid we cannot give you an exception; we cannot recognize your standing, as you are representing no one before the Commission.

Mr. BROWNE—I am only referring to the testimony of Mr. Egan, that is the extent of that.

The transcript was received in evidence and marked Exhibit No. 214, May 13th, 1907.

*Q.* Was Mr. Egan present when you made this transcript?

*A.* Part of the time.

*Q.* Did you inquire of Mr. Egan the meaning of abbreviations appearing in his book?

*A.* I did.

*Q.* Will you tell us what the various columns of this transcript refer to, and also tell us the meaning of the abbreviations that appear in them?

*A.* The columns are as follows: The first column at the left-hand side means the place delivered to, for instance, Paymaster's Office. The second column is the date. The third column is lineal measure and pieces; for instance, under the first April account, page 1, it reads, Paymaster's Office, April 8th, 1/16, meaning one piece 16 feet long. The next column, taking the same

example, means lineal sometimes and square feet at other times. The last column is the class of lumber, and occasionally where they did not have room to put in the number of pieces in lineal feet in its correct column they put it at the right next to the class of lumber.

*Q.* Will you explain the meaning of the various abbreviations?

*A.* The abbreviations that I have here are as follows: D 2 S means dressed two-sides. Flg. is flooring. Mer. is merchantable. F. Com. is First Common. Sd. Com. Second Common. N. C. Clg., North Carolina ceiling. T. & G., tongue and groove. B. or Bdle., bundle. Then there was one here which was nosing and cove, which is a term in lumber; I do not understand what it means; it is for big pieces. There is also, Mr. Commissioner, in this right-hand column once or twice the name of stock from which the lumber was taken.

*Q.* Who explained to you, Mr. Whittlesey, the meaning of the abbreviations that you have just told us about?

*A.* Mr. Egan and another gentleman in his office, his bookkeeper; I think his name was Lynn.

Commissioner MITCHEL—That is all.

THOMAS A. TYDINGS, recalled for further examination, testified as follows:

*Examined by Commissioner MITCHEL:*

*Q.* Mr. Tydings, you said in your testimony at the last hearing that you acquired all your expert knowledge or your knowledge which enabled you to bid on contracts and on orders for the City of New York during your employment by Boyce & Lynch in the conduct of their business, didn't you?

Mr. BROWNE—Messrs. Commissioners, I again object to any further examination of Mr. Tydings upon the ground that the Commissioners have no authority or power to conduct this examination; that

they have no power to issue subpoenas; that the examination of Mr. Tydings has been closed; that he appears here simply pursuant to the request of the Commissioners made through me, and desires to object to a further inspection of his books and further examination of himself, upon the grounds, among others, that the Commission on the date of his last examination permitted his private books to be inspected and read by persons not in the employ of the City of New York, persons not connected with the Commissioners of Accounts, and that the persons who thus wrongfully obtained information with reference to those books and accounts have acquired information which is detrimental to Mr. Tydings in his business, and he therefore objects to being further examined or to produce his books.

Commissioner MITCHEL—In reply to the last objection of counsel, I desire to state that while the person referred to by counsel is not upon the staff of the Commissioners of Accounts he is temporarily in the service of the Commissioners of Accounts, but that as soon as the objection was made by the witness and noted by the Commission he was instructed to withdraw from the proximity of the books. As to the rest, I desire to ask counsel whether he takes the position that the Commissioners of Accounts have no power to issue a subpoena to any person whomsoever?

Mr. BROWNE—The counsel for Mr. Tydings takes the ground that the Commissioners have no right to issue subpoenas to persons other than employees of the City of New York or public officials. Mr. Tydings is not a public official and is not an employee of the City of New York.

Commissioner MITCHEL—Do you take the position that this Commission has no power to issue sub-

poenas to dealers contracting with the City of New York ?

Mr. BROWNE—Mr. Commissioner, I do not think I should be required to go beyond the objections I have already specified. I have advised Mr. Tydings that they are sufficient in my opinion to warrant his refusal to be further examined.

Commissioner MITCHEL—The Commission rules that the objections stated are quite insufficient, and instructs the witness to answer the question that was asked.

The WITNESS—Mr. Commissioners, I decline to answer. I respectfully decline to be further examined by the Commissioners of Accounts or submit my private papers and books of account for their inspection, upon the ground that the Commissioners have no legal right or authority to examine me or inspect my books and papers. I am not a public officer and have not been employed by the City of New York. The examination and proceedings thus far had have been conducted in gross violation of my rights and contrary to law; my private books have been inspected and read by persons who had absolutely no authority to read the same, said inspection having been permitted by the Commissioners against my protest; the Commissioners have allowed said persons to copy entries of my business and personal transactions from said books and acquire information relating to trade prices and other matters which are personal to every business house.

Commissioner MITCHEL—The Commission rules that your objections are quite insufficient and instructs you that the only ground upon which you may refuse to answer a question in this inquiry is that it tends to degrade or incriminate you. Do you place your denial upon that ground ?

Mr. BROWNE—The witness does not place his refusal to answer upon any ground other than those specified before the Commissioners.

Commissioner MITCHEL—Let the witness answer. Do you place your refusal upon that ground?

The WITNESS—Upon the grounds I have just read solely.

Commissioner MITCHEL—That ground is insufficient, and the Commission instructs you to answer the question.

The WITNESS—I positively decline to answer any more questions.

Commissioner MITCHEL—You are then warned that you will be reported to the Supreme Court for action.

The WITNESS—Notwithstanding, I respectfully decline, sir.

Commissioner MITCHEL—Nothing further with this witness.

At this point a recess was taken until 2 P. M.

#### AFTER RECESS.

Commissioner MITCHEL—James McCleery.

Mr. McCLEERY—Mr. Mitchel, I would rather wait for my counsel. He is in the Supreme Court.

Commissioner MITCHEL—Are you waiting for Mr. Browne?

Mr. McCLEERY—Yes, sir.

Commissioner MITCHEL—We will wait a little while.

At twenty-five minutes past two James McCleery's name was called and he failed to respond.



W. D. LOUDON, recalled for further examination, testified as follows:

*Examined by Commissioner MITCHEL:*

*Q.* Mr. Loudon, did you procure from the files of the Finance Department all the warrants drawn to the order of Thomas A. Tydings for work on public buildings and offices of this city?

*A.* Of last year, yes.

*Q.* I show you warrant No. 6,173, of 1906, Series B, Manhattan. Is that one of the warrants drawn to the order of Thomas A. Tydings?

*A.* That is, yes, sir.

The warrant was received in evidence and marked Exhibit No. 215, May 13th, 1907, C. B.

*Q.* I show you warrant No. 9,898 B, Manhattan, 1906, drawn to the order of Thomas A. Tydings. Is that one of the warrants for work done under order of the Bureau of Public Buildings and Offices?

*A.* Yes, sir.

The warrant was received in evidence and marked Exhibit No. 126, May 13th, 1907, C. B.

*Q.* I show you warrants Nos. 14,639 and 14,640 B, Manhattan, 1906, payable to the order of Thomas A. Tydings. Are those two of the warrants drawn for work done under order of the Bureau of Public Building & Offices?

*A.* Yes, sir.

The warrants were received in evidence and marked Exhibits Nos. 217 and 218 respectively, May 13th, 1907, C. B.

*Q.* I show you warrant 21,039, B, Manhattan, 1906, drawn to the order of Thomas A. Tydings. Is that one of the warrants for work done under order of the Bureau of Public Buildings & Offices?

*A.* It is, yes, sir.

The warrant was admitted in evidence and marked Exhibit No. 219, May 13th, 1907, C. B.

*Q.* I show you warrants Nos. 2,167, 2,528, both of B, Manhattan, 1907, and Nos. 8,181 and 12,152, of A, Manhattan, 1907, all four drawn to the order of Thomas A. Tydings. Are these four warrants drawn for work done under order of the Bureau of Public Buildings & Offices?

*A.* They are, yes, sir.

The warrants were admitted in evidence and marked Exhibits Nos. 220, 221, 222 and 223, May 13th, 1907, C. B.

*Q.* Mr. London, did you also procure for the Commission from the files of the Finance Department the warrants drawn to the order of Boyce & Lynch for work done under orders of the Bureau of Public Buildings & Offices?

*A.* I did, yes, sir.

*Q.* I show you warrants Nos. 10,467 and 11,327, both of B, Manhattan, 1905. Are those two of the warrants drawn for work done under the orders of the Bureau of Public Buildings & Offices?

*A.* They are.

The warrants were admitted in evidence and marked Exhibits Nos. 224 and 225, May 13th, 1907, C. B.

*Q.* I show you warrant No. 12,741, B, Manhattan, 1905, to the order of Boyce & Lynch. Is this one of the warrants drawn to their order and issued for work done under orders of the Bureau of Public Buildings & Offices?

*A.* It is.

The warrant was admitted in evidence and marked Exhibit No. 226, May 13th, 1907, C. B.

*Q.* I show you warrants Nos. 14,367 and 16,209, both of B, Manhattan, 1905, both to the order of Boyce & Lynch, and ask you if those are warrants issued for work done pursuant to orders from the Bureau of Public Buildings & Offices?

*A.* They are.

The warrants were received in evidence and marked Exhibits Nos. 227 and 228, May 13th, 1907, C. B.

*Q.* I show you warrants Nos. 18,955, 511, 1,824 and 3,659, the first being of B, Manhattan, 1905, the last mentioned three being of B, Manhattan, 1906, all drawn to the order of Boyce & Lynch, and ask you if these were issued for work done pursuant to orders received from the Bureau of Public Buildings & Offices?

*A.* They are, yes, sir.

The warrants were admitted in evidence and marked Exhibits Nos. 229, 230, 231 and 232, May 13th, 1907, C. B.

*Q.* Mr. Loudon, were all these warrants procured from the files of the Finance Department?

*A.* All procured from the records of the Finance Department.

Commissioner MITCHEL—That is all, Mr. Loudon.

JAMES McCLEERY, recalled for further examination, being duly re-sworn, testified as follows:

Mr. BROWNE—Messrs. Commissioners, on behalf of the witness James McCleery, I understand that your subpoena was served upon Mr. McCleery at about half past eleven o'clock this morning, and I understand that whatever books or papers Mr. McCleery has are at his residence in Jersey. That being so, why it is apparent you have not given him sufficient time to even attempt a compliance with the subpoena, and under the circumstances he requests an adjournment.

Commissioner MITCHEL—Does the proposed adjournment contemplate the stipulation of counsel that the witness shall produce here the books and papers called for in this subpoena at the time of the adjournment?

Mr. BROWNE—It would be impossible to do that by reason of the fact that Mr. McCleery is unable to state just what books he has; until he makes an investigation at his own residence to see what books he has, it would be impossible to determine that.

Commissioner MITCHEL—It is stipulated that the witness shall produce at the time of the adjourned hearing such check books, check stubs and cancelled checks pertaining to his account with the Greenwich Bank of New York from November 1st, 1904, to the present time, as he has in his possession.

Mr. BROWNE—Yes, subject to the same objection that was made when he appeared as a witness last week. An objection was made to the power of the Commissioners; subject to that, so we do not waive our rights under the objection we then made. You remember that was also made on behalf of Mr. Blake.

Commissioner MITCHEL—What I ask is whether the witness will produce and submit to the examination of the Commission such of these papers as he has, subject to your objection and exception on the minutes.

Mr. BROWNE—Yes, subject to that objection, so long as we do not waive our rights.

Commissioner MITCHEL—Then it is stipulated that we will have the privilege of examining such papers as he has in his possession.

Mr. BROWNE—As he has in his possession, subject of course again to the original objection that

was taken to the authority of the Commissioners to conduct this investigation.

Commissioner MITCHEL—Then we will adjourn Mr. McCleery's examination until 10.30 to-morrow morning.

Mr. BROWNE—Would you make that Wednesday morning? It is extremely inconvenient for me to be here to-morrow. Or if you cannot do that, I prefer that you make it in the afternoon at two o'clock.

Commissioner MITCHEL—We are not going to sit in the afternoon, so I will adjourn Mr. McCleery's examination until 10.30 o'clock on Wednesday morning. The understanding is, Mr. McCleery, that such of those checks, check books and stubs as you may have in your possession on your account with the Greenwich Bank will be produced.

The WITNESS—I have very few, because I do not keep them long.

Commissioner MITCHEL—Well, such as you have.

The WITNESS—Yes, sir; you can have anything I have got.

MARVYN SCUDDER, recalled for further examination, testified as follows:

*Examined* by Commissioner MITCHEL:

Q. Mr. Scudder, have you examined Exhibits 187 and 188, being respectively transcripts of the accounts of William H. Walker and James McCleery in the Greenwich Bank?

A. I have.

Q. For what purpose have you examined those transcripts?

A. For the purpose of noting the deposits and the drafts against those accounts and making comparisons of the two accounts.

Q. Have you examined the deposit slips of the accounts of William H. Walker produced this morning and admitted in evidence?

A. I have.

Q. With what purpose was that examination made?

A. To aid me in making the comparison just spoken of.

Q. Now, Mr. Seudder, have you also examined the warrants drawn to the order of the firm of Boyce & Lynch and to the order of Thomas A. Tydings during the years 1904, 1905 and 1906?

A. I have.

Q. With what purpose did you examine those?

A. For the same purpose, to aid me in making the comparisons.

Q. Voucher or warrant No. 2,099, dated January 17th, 1905, drawn to the order of Boyce & Lynch, being Exhibit No. 181-G, bears the endorsement of Boyce & Lynch and of James McCleery, and the receipt stamp of the Greenwich Bank, dated January 20th, 1905. Mr. Seudder, did you find in the account of James McCleery a deposit upon January 20th, 1905, corresponding to the amount of this voucher, which is \$575.80?

A. I find a deposit on that day in Mr. McCleery's account, from the transcript, of \$1,107.42, which presumably contains the amount \$575.80.

Q. Have you attempted to trace the drafts against that deposit from Mr. McCleery's account?

A. I have, but in this particular case I did not have the deposit slip to go by and could therefore only estimate that \$575.80 as of that day was contained in the \$1,107.42.

Q. I asked you if you had traced that deposit with a view to seeing what drafts were made against it by Mr. McCleery on that day?

A. I have.

*Q.* Do you find any draft made by Mr. McCleery corresponding in amount to the amount of this warrant?

*A.* I find three days later a draft made on that account of \$342.80, which corresponds in this case only as to the 80 cents.

*Q.* Were you able to trace that draft of \$342.80 into Mr. Walker's account in any way?

*A.* I was not.

*Q.* Warrant No. 5,737, dated February 11, 1905, in the sum of \$325, payable to Boyce & Lynch, being Exhibit No. 181, is endorsed by Boyce & Lynch and by James McCleery, and bears the receipt stamp of the Greenwich Bank, dated February 17th, 1905. Do you find in the transcript any deposit in Mr. McCleery's account corresponding to the amount of this warrant?

*A.* I do, exactly \$325, on that day.

*Q.* Do you find any draft from Mr. McCleery's account corresponding in amount to the amount of this warrant?

*A.* I do, March 4th, 1905, shortly afterwards, \$325.

*Q.* Have you attempted to trace this into Mr. Walker's account?

*A.* I have, but have been unable to find the exact amount of \$325.

*Q.* Did you examine the deposit slips covering these dates?

*A.* I did not.

*Q.* Warrant No. 6,566, dated February 21st, 1905, in the sum of \$571.55, payable to Boyce & Lynch, being Exhibit No. 181-A, is endorsed by Boyce & Lynch and James McCleery, and bears the receipt stamp of the Greenwich Bank, dated March—the date is rubbed out—March, 1905. Do you find a deposit in Mr. McCleery's account in March corresponding in amount to the amount of this warrant?

*A.* I do, March 3d, 1905, \$571.55, and a draft March 7th, 1905, of \$346.55.

*Q.* Were you able to trace a corresponding amount into Mr. Walker's account?

A. I was not, on account of not having the deposit slip.

Q. You mean you did not have the deposit slip covering this date?

A. Covering this date they were not furnished us.

Q. Warrant No. 9,060, dated March 10th, 1905, in the sum of \$413.50, payable to Boyce & Lynch, being Exhibit No. 181-B, is endorsed by Boyce & Lynch and James McCleery, and bears the receipt stamp of the Greenwich Bank, dated March 16th, 1905. Do you find a deposit in Mr. McCleery's account on that date corresponding to the amount of this warrant?

A. I do, \$413.50.

Q. The same amount?

A. Same amount.

Q. On what day?

A. March 16, 1905.

Q. Do you find any draft corresponding in amount in the account?

A. Not exactly corresponding to this amount.

Q. Warrant No. 10,790, dated March 24th, 1905, in the sum of \$572.37, payable to Boyce & Lynch, being Exhibit No. 181-C, is endorsed by Boyce & Lynch and James McCleery, and bears the receipt stamp of the Greenwich Bank, dated March 28th, 1905. Do you find a deposit corresponding in amount to the amount of this warrant in Mr. McCleery's account on that date?

A. No, I do not, but as I recollect, "First teller" is stamped on the back of that voucher, which would indicate that it was cashed.

Q. Warrant 15,717, dated April 25th, 1905, in the sum of \$573.61, payable to Boyce & Lynch, being Exhibit 181-D, is endorsed by Boyce & Lynch and James McCleery, and bears the receipt stamp of the Greenwich Bank, dated April 29th, 1905. Do you find a deposit equalling in amount the amount of this voucher in Mr. McCleery's account on that day?

A. I do, the exact amount, \$573.61, and May 1st, 1905, a draft against his account of \$295.61.



*Q.* Which does not correspond in amount, does it?

*A.* It corresponds in amount only as to the cents.

*Q.* Have you attempted to trace this into the account of Mr. Walker?

*A.* I have, but have been unable to do so on account of not having the deposit slip for that time.

*Q.* You mean you have not the deposit slips covering that date, is that right?

*A.* Covering that date, yes, sir.

*Q.* Warrant 18,614, dated May 11, 1905, in the sum of \$477.03, payable to Boyce & Lynch, being Exhibit No. 181-E, is endorsed by Boyce & Lynch and James McCleery, and bears the receipt stamp of the Greenwich Bank, dated May 13th, 1905. Do you find a deposit in Mr. McCleery's account equal in amount to the amount of this voucher on that day?

*A.* I do, of exactly the same amount, \$477.03, and May 13th, 1905, I find drafts on that account of \$250 and \$227.03, and in Mr. Walker's account on that same day, May 13th, 1905, I find \$227.03 deposited, or exactly the same amount as one of those drafts on that same day in Mr. McCleery's account.

*Q.* Does the deposit in Mr. McCleery's account on May 13th, 1905, bear any proportion to the amount of this warrant No. 18,614?

*A.* It does; it is \$227.03, which is \$250 less than the amount of the warrant; the two warrants were \$250 and \$227.03.

*Q.* You mean the two drafts made by whom?

*A.* Mr. McCleery.

*Q.* Now you say the sum of this warrant, \$477.03, was deposited in Mr. McCleery's account on May 13th, is that right?

*A.* May 13th, 1905.

*Q.* And that out of Mr. McCleery's account on the same day were drawn two drafts, one of \$250 and the other of \$227.03?

*A.* I do.

*Q.* What is the sum total of those two drafts?

*A.* \$477.03.

*Q.* Is that equal to the amount of this voucher?

*A.* It is.

*Q.* And you say you found a deposit in Mr. Walker's account on the same day?

*A.* On the same day, of \$227.03.

*Q.* Does that correspond to one of the drafts in amount made by Mr. McCleery on that day?

*A.* Exactly.

*Q.* Voucher No. 20,909, dated May 25th, 1905, in the sum of \$576.55, payable to Boyce & Lynch, being voucher No. 181-I, is endorsed by Boyce & Lynch and James McCleery, and bears the receipt stamp of the Greenwich Bank, dated May 27th, 1905. Do you find in Mr. McCleery's account under that date an amount deposited equal to the amount of this warrant?

*A.* I do, \$576.55, and the same drawn against the McCleery account \$251.55 and \$325.

*Q.* What is the sum of those two drafts made by Mr. McCleery on the same day?

*A.* \$576.55, or the total of the deposit made on that day.

*Q.* And does that equal the amount of the warrant?

*A.* That equals the amount of the warrant.

*Q.* Exactly?

*A.* Exactly.

*Q.* Do you find any deposit made in Mr. Walker's account on the same day?

*A.* I do, on the same day, \$251.55, or a like amount to one of the drafts drawn against the McCleery account on the same day.

*Q.* Now, the deposit in the McCleery account, the two drafts on the McCleery account and the deposit in the Walker account were all upon the same day, is that right?

*A.* All upon the same day.

*Q.* And the deposit in the Walker account equals the amount of one of the McCleery drafts?

*A.* Exactly.

*Q.* Warrant No. 23,248, dated June 8th, 1905, in the sum of \$691.41, payable to Boyce & Lynch, being Exhibit No. 181-II, is endorsed by Boyce & Lynch and James McCleery and bears the receipt stamp of the Greenwich Bank, dated June 13th, 1905. Mr. Scudder, do you find in Mr. McCleery's account under the date of the 13th of June, 1905, an amount deposited equal to the amount of this warrant?

*A.* Exactly, \$691.41.

*Q.* Do you find any drafts against that?

*A.* I do, but not the same day.

*Q.* On what day?

*A.* June 17, 1905.

*Q.* How many days later is that?

*A.* Four days later.

*Q.* What are those drafts?

*A.* \$591.41 and \$100, and on the same day I find a deposit in Mr. Walker's account of \$1,791.41, or \$1,200 more than one of the drafts drawn against the McCleery account.

*Q.* Does either of the drafts upon the McCleery account on the 17th of June correspond in any respect with the amount of this warrant?

*A.* The sum of the two equals the amount of the warrant. The warrant was \$691.41 and the two drafts were \$591.41 and \$100 respectively.

*Q.* Now, does the deposit in the Walker account correspond in any respect with the amount of this warrant?

*A.* As to the first two dollar figures and the cents it does.

*Q.* Do you mean the first two dollar figures or the last two dollar figures?

*A.* I should have said the last two dollar figures, ninety-one dollars and forty-one cents.

*Q.* Do you say that the deposit made in the Walker

account was made upon the same day as the two drafts upon the McCleery account?

A. On the same day. But here I might add that I did not have the deposit slip in the Walker account to find out the different items of the \$1,791.41.

Q. What is the first date at which you had in your possession, furnished by the bank, deposit slips of the Walker account?

A. April 21st, 1906.

Q. And what year is this?

A. This is 1905.

Q. Warrant No. 24,574, dated June 19th, 1905, in the sum of \$633.03, payable to Boyce & Lynch, being Exhibit No. 181-J, is endorsed by Boyce & Lynch and James McCleery, and bears the receipt stamp of the Greenwich Bank, one dated June 24th, 1905, and the other June 21st, 1905. Do you find in Mr. McCleery's account on either of those dates, June 24th or 21st, a deposit corresponding in amount to the amount of this warrant?

A. I do, on June 21st, 1905, the exact amount of the warrant, \$633.03, was deposited.

Q. Have you found any drafts against that out of Mr. McCleery's account?

A. Not that I could locate.

Q. Have you found any deposits in Mr. Walker's account corresponding in amount?

A. Not that I could locate. This was before I had the deposit slips for Mr. Walker's account.

Q. Warrant No. 29,213, dated July 21st, 1905, in the sum of \$647.65, payable to Boyce & Lynch, being Exhibit No. 181-K, is endorsed by Boyce & Lynch and James McCleery, and bears the receipt stamp of the Greenwich Bank, dated July 26th, as far as it can be read, 1905. Do you find any deposit in Mr. McCleery's account on that day or thereabouts corresponding in amount to the amount of this warrant?

A. On July 26th, 1905, \$647.65, or the exact amount of the warrant.

Q. Do you find any drafts upon Mr. McCleery's account corresponding in amount in any degree to the amount of this warrant?

A. I do, August 7th, 1905, \$397.65, which corresponds as to the last dollar figure and the cents.

Q. Have you found any deposit in Mr. Walker's account corresponding in any way?

A. I have not, as I did not have the deposit slips at that time to aid me.

Q. Warrant No. 10,467, in the sum of \$861.30, payable to Boyce & Lynch, being Exhibit No. 244, is endorsed by Boyce & Lynch and James McCleery, and bears the receipt stamp of the Greenwich Bank, dated August 3d, 1905. Have you found in Mr. McCleery's account any deposit upon that date corresponding in amount to the amount of this warrant?

A. I have, \$839.39, which is eight dollars——

Q. Read that again, please.

A. \$869.39, which is \$8 more than the amount of the warrant, but as I did not have Mr. McCleery's deposit slips, I am not able to say whether it is \$861.39 plus cash of \$8 deposited.

Q. Do you find any draft upon Mr. McCleery's account corresponding in amount to the amount of this warrant at that time?

A. I do, August 24th, 1905, \$361.39, or just \$500 less than the amount of the warrant.

Q. You say that the deposit of \$869.39 was on August 3d, is that right?

A. August 3d, 1905.

Q. And that the draft was on August 24th in the sum of \$361.39?

A. Which is \$500 exactly less than the amount of the warrant.

Q. Now, do you find any deposit in Mr. Walker's account at that time corresponding to the amount of that draft?

A. I do, on exactly the same date, August 24th, 1905, the exact amount, \$361.39.

Q. The exact amount of what?

A. Of Mr. McCleery's draft on that day.

Q. And what proportion does that deposit in Mr. Walker's account on the 24th of August bear to the amount of this warrant?

A. Just an even \$500 less than the amount of the warrant, \$861.39.

Q. You mean it corresponds fractionally?

A. It corresponds fractionally.

Q. Warrant 11,327, dated August 18th, 1905, in the sum of \$981.50, payable to Boyce & Lynch, being Exhibit No. 225, is endorsed by Boyce & Lynch and James McCleery and bears the receipt stamp of the Greenwich Bank, August 24th, 1905. Do you find any deposit in Mr. McCleery's account on that date corresponding to this warrant?

A. I do, exactly the same amount, \$981.50.

Q. Do you find any draft upon Mr. McCleery's account at this time corresponding to the amount of this warrant?

A. I do, a few days later, September 9th, 1905, two drafts, \$481.50 and \$100, and on the same day——

Q. Well, what proportion does the sum of those drafts bear to the total amount of this warrant?

A. The sum of those drafts is an even \$400 under the amount of the warrant.

Q. Now, do you find any deposit in Mr. Walker's account at this time corresponding to the amount of either of those drafts or to the amount of the warrant?

A. I do, on the same day as those drafts were made I find a deposit in Mr. Walker's account of \$481.50, or the exact amount of one of those drafts.

Q. Now, on what day did you say the two drafts were made upon the McCleery account?

A. September 9th, 1905.

*Q.* And on what day was the deposit made in the Walker account?

*A.* September 9th, 1905.

*Q.* The same day?

*A.* The same day.

*Q.* And what proportion does the deposit in the Walker account, or what similarity does that bear to the total amount of this warrant, if any?

*A.* It is an even \$500 less than the amount of the warrant and corresponds fractionally.

*Q.* Warrant No. 34,277, dated August 29th, 1905, in the sum of \$662.33, payable to Boyce & Lynch, being Exhibit No. 181-L, endorsed by Boyce & Lynch and James McCleery, and bears the receipt of the Greenwich Bank, dated September 11th, 1905. Do you find a deposit in the McCleery account upon that day corresponding to the amount of this warrant?

*A.* On September 11th, 1905, the exact amount of the warrant, \$662.33.

*Q.* Do you find any drafts upon the McCleery account at this time corresponding to the amount of this warrant?

*A.* I do, September 23d, 1905, two drafts, \$130 and \$432.33, which, added together, make \$562.33, or just \$100 less than the warrant or the deposit in Mr. McCleery's account on the 11th of September.

*Q.* Do you find any deposit in the Walker account at this time corresponding in any way to the amount of either one of those drafts or to the amount of the warrant?

*A.* I do; I find on the same day, September 23d, 1905, an amount of \$932.33 deposited in Mr. Walker's account, which is just an even \$500 more than the amount of one of those drafts drawn the same day from the McCleery account.

*Q.* Warrant No. 36,389, dated September 19th, 1905, in the sum of \$665.50, payable to Boyce & Lynch, being Exhibit No. 173, is endorsed by Boyce & Lynch and James McCleery and bears the receipt stamp of the Greenwich Bank, dated September 22d, 1905; also warrant No.

12,741, dated September 18th, 1905, in the sum of \$810, payable to Boyce & Lynch, being Exhibit No. 226, is endorsed by Boyce & Lynch and James McCleery, and bears the receipt stamp of the Greenwich Bank, dated September 22d, 1905. Do you find any deposit in the McCleery account corresponding in amount to the amount of either or of the sum of these warrants upon that day?

A. I do, I find an amount equal exactly to the sum of the amount of those two warrants, or \$1,475.50.

Q. Do you find any drafts upon the McCleery account corresponding in amount or proportionately corresponding to the amount of either or both of these drafts?

A. I do, on October 7th, 1905, I find two drafts, \$475.50 and \$100, one of these drafts being just an even \$1,000 less than the deposit made on the 22d day of September.

Q. And the deposit made on the 22d day of September you say equals the total of these two warrants, is that right?

A. Of the two warrants.

Q. Do you find any deposit in the Walker account at that time corresponding in amount to the amount of either of those drafts?

A. I do, on the same day, October 7th, 1905, I find a deposit of \$475.50, or the exact amount of one of those drafts.

Q. Warrant No. 14,367, dated October 13th, 1905, in the sum of \$765.50, payable to Boyce & Lynch, being Exhibit No. 227, is endorsed by Boyce & Lynch and James McCleery, and bears the receipt stamp of the Greenwich Bank, dated October 16th, 1905. Do you find in the McCleery account a deposit on that day equal in amount to the amount of this warrant?

A. I do, exactly the same amount.

Q. What is it?

A. \$765.50.

Q. Do you find any drafts against this amount at that time from the McCleery account?



A. None that I could trace to this amount.

Q. Have you found any deposits in the Walker account at this time?

A. None that I could trace at this time, owing to the fact that there were a number of items that could not be followed out and I did not have the deposit slip to go by in this particular case.

Q. Warrant 39,808, bearing date October 17th, 1905, in the sum of \$681.88, payable to Boyce & Lynch, being Exhibit No. 172, is endorsed by Boyce & Lynch and James McCleery and bears the receipt stamp of the Greenwich Bank, dated October 19th, 1905. Do you find in the McCleery account on that day a deposit equal in amount to the amount of this voucher or warrant?

A. I do, exactly the same amount, on the 19th of October, 1905, \$681.88.

Q. Do you find any draft upon the McCleery account at this time corresponding to the amount of this warrant?

A. I find a draft on October 28th, 1905, of \$412.38, which exactly corresponds with an amount deposited the same day in Mr. Walker's account.

Q. Do you mean that on the same day there was deposited in Mr. Walker's account the sum of \$412.38?

A. I do.

Q. This sum of \$412.38 is not, however, similar to the amount of the warrant, is it?

A. It is not similar to the amount of the warrant, except in the case of the cents.

Q. Warrant No. 16,209, dated November 9th, 1905, in the sum of \$656.12, payable to Boyce & Lynch, being Exhibit No. 228, is endorsed by Boyce & Lynch and James McCleery, and bears the receipt stamp of the Greenwich Bank, dated November 11th, 1905. Do you find on that day a deposit in the McCleery account equaling the amount of this warrant?

A. I do, exactly equaling it, \$656.12.

Q. Do you find any draft upon the McCleery account

at this time corresponding in any way to the amount of this warrant?

A. Yes, a few days later, November 28th, 1905, \$356.12.

Q. In what respect does this correspond to the amount of the warrant?

A. It is an even \$300 less.

Q. Do you find any deposit in the Walker account corresponding either to the amount of that draft or this warrant?

A. I have not been able to trace the exact amount.

Q. Warrant No. 44,237, dated November 20th, 1905, in the sum of \$686.45, payable to Boyce & Lynch, being Exhibit No. 181-F, is endorsed by Boyce & Lynch and James McCleery, and bears the receipt stamp of the Greenwich Bank, dated November 24th, 1905. Do you find on that day in the McCleery account a deposit equaling in amount the amount of this warrant?

A. Exactly the same, \$686.45.

Q. Do you find any draft upon the McCleery account at this time corresponding in any way to the amount of this warrant?

A. December 19th, 1905, \$336.45.

Q. In what way does that correspond to the amount of the warrant?

A. It is an even \$350 less.

Q. Do you find any deposit in the Walker account at that time corresponding to either this warrant or the amount of that draft?

A. I do, exactly equaling the amount of the draft, \$336.45, on the same day, December 9th, 1905.

Q. A deposit in the Walker account then was made upon the same day as the draft upon the McCleery account?

A. It was.

Q. And is identical in amount?

A. Is identical in amount.

Q. Warrant No. 18,955, dated December 14th, 1905,

is the sum of \$688.16, payable to Boyce & Lynch, being Exhibit No. 229, is endorsed by Boyce & Lynch and James McCleery, and bears the receipt stamp of the Greenwich Bank, dated December 16th, 1905. Do you find on that day in the McCleery account any deposit equaling in amount the amount of this warrant?

A. Exactly the same amount, \$688.16.

Q. Do you find in the Walker account any draft corresponding in any way to the amount of this warrant?

A. Not corresponding exactly.

Q. Do you find in the Walker account any deposit corresponding to the amount of this deposit?

A. I have not been able to find one.

Q. Warrant No. 511, dated January 8th, 1906, in the sum of \$387.50, payable to Boyce & Lynch, being Exhibit No. 230, is endorsed by Boyce & Lynch and James McCleery, and bears the receipt stamp of the Greenwich Bank dated January 13th, 1906. Do you find upon that day any deposit in the McCleery account corresponding to the amount of this warrant?

A. Exactly the same amount, \$387.50.

Q. On what day?

A. On January 13th, 1906.

Q. Do you find any draft upon the McCleery account at that time corresponding in any way to the amount of this warrant?

A. I do, January 27th, 1906, two drafts, one of \$187.50 and the other of \$100 even.

Q. In what way does either one of those drafts correspond, if at all, to the amount of this warrant?

A. The sum of them is just \$100 less than the amount of the warrant.

Q. Do you find any deposit in the Walker account at this time corresponding in any way to the amount of either of those drafts or to this warrant?

A. I do, and one that is exactly the same as one of those drafts, \$187.50, and deposited on the same day on which that draft was drawn.

*Q.* What relation if any does that \$187.50 deposited in Mr. Walker's account on that day bear to the amount of this warrant?

*A.* It is an even \$200 less.

*Q.* Warrant 1,824, dated January 25th, 1906, in the sum of \$684.57, payable to Boyce & Lynch, being Exhibit No. 231, is endorsed by Boyce & Lynch, and James McCleery and bears the receipt stamp of the Greenwich Bank dated February 2nd, 1906. Do you find on that date any deposit in the McCleery account corresponding in amount to the amount of this warrant?

*A.* I do, exactly the same, \$684.57.

*Q.* Do you find any draft upon the McCleery account at that time corresponding in any way to the amount of this warrant?

*A.* I do, February 3rd, the next day, \$384.57, which is just an even \$300 less than the amount of that deposit or warrant.

*Q.* Do you find any deposit in the Walker account at this time corresponding in any way to the amount of that draft or to the amount of this warrant?

*A.* I found a deposit on the same day, February 3rd, 1906, of \$801.23, and after consulting the deposit slip I found that it was divided into two items, \$416.66 and \$384.57. The \$416.66 is presumably a monthly payment from a \$5,000 a year payment. The \$384.57 is exactly the same as the amount of the draft on the same date from the McCleery account.

*Q.* Do you say you found on the deposit slip that this total deposit upon the 3rd of February was split into those two items, \$416.66 and \$384.57?

*A.* I did.

*Q.* Have you found the item of \$416.66 appearing in the Walker account at any other place?

*A.* I have. It usually appears the 1st of every month.

*Q.* Now, what relation if any does the item \$384.57 deposited in the Walker account upon the 3rd of February bear to the McCleery draft?

A. It is just an even \$300 less than the McCleery draft or the Boyce & Lynch warrant.

Q. I asked you what relation if any it bore to the McCleery draft?

A. It is exactly the same.

Q. What day was the McCleery draft made?

A. The same day as the deposit, February 3rd, 1906.

Q. As what deposit?

A. As the deposit in the Walker account.

Q. And what relation if any does the \$384.57 item in the Walker account bear to the amount of this warrant?

A. It is just an even \$300 less than the amount of the warrant.

Q. Warrant No. 3,659, dated February 21st, 1906, in the sum of \$591.50, payable to Boyce & Lynch, being Exhibit No. 232, is endorsed by Boyce & Lynch and James McCleery and bears the receipt stamp of the Greenwich Bank dated February 28, 1906. Do you find in the McCleery account upon that date any deposit equal in amount to the amount of this warrant?

A. I do, exactly the same amount, \$591.50.

Q. Upon that same day?

A. Upon that same day, February 28th, 1906.

Q. Do you find any draft upon the McCleery account at this time corresponding in any way to the amount of this warrant?

A. I do, on March 10th, 1906, a draft of \$341.50 was drawn against the McCleery account.

Q. Do you find any deposit in the Walker account at this time corresponding either to the amount of this draft or this warrant?

A. I have not been able to locate such an amount.

Q. Warrant No. 9,220, dated March 5th, 1906, in the sum of \$689.35, payable to Thomas A. Tydings, being Exhibit No. 175, is endorsed Thomas A. Tydings, James McCleery, and bears the receipt stamp of the Greenwich Bank dated March 14th, 1906. Do you find in the Me-

Cleery account a deposit on that day equal in amount to the amount of this warrant?

A. I do, March 14th, 1906, exactly the same amount, \$689.35.

Q. Do you find at this time any draft upon the McCleery account corresponding in any way to the amount of this warrant?

A. I do, March 17th, 1906, three days later, \$389.35 withdrawn.

Q. What relation, if any, does this sum drawn by Mr. McCleery upon that day bear to the amount of this warrant?

A. It is exactly \$300 less than the amount of the warrant.

Q. Do you find any deposit in the Walker account at this time corresponding in any way to the amount of that draft or of this warrant?

A. I do, on April 7th, 1906, \$439.35.

Q. Did you have the deposit slips covering that date in the Walker account?

A. I did not. The first deposit slip I had was April 21st, 1906.

Q. When you testified before in the case of Warrant No. 1,824 that you found the total deposit in the Walker account on the 3rd of February, 1906, to be split into two items from the deposit slip, what deposit slip were you referring to?

A. I was referring to a deposit slip of January 3rd, 1907. I was confused about the date. The same items practically appeared on January 3rd, 1907, where the \$416.66 was separated from the other item. In this particular case, as I recollect now, I took the amount \$416.66 and made the deduction and found an amount corresponding the amount of the warrant.

Q. Do you mean that you arrived at the amount of \$416.66 inferentially?

A. Inferentially in that case.

Q. And deducting that amount, you found the balance

to correspond to the draft on the McCleery account, is that right?

A. Within \$300.

Commissioner MITCHEL—Read that question.

Q. (Question repeated)

A. Yes, within \$300.

Commissioner MITCHEL—Now, will you read that question again?

Q. (Question repeated)

A. Yes.

Q. What did you mean when you said you found it to be \$300 less?

A. I was referring to the warrant.

Q. You mean you were confused as between the warrant and the draft on the McCleery account?

A. I do.

Q. Did you find for the month of February any item in the Walker account of \$416.66, other than this item in which you infer that amount was contained?

A. I did not.

Q. Warrant 12,092, dated March 22nd, 1906, in the sum of \$689.67, payable to Thomas A. Tydings, being Exhibit No. 178-A, is endorsed by Thomas A. Tydings and James McCleery and bears the receipt stamp of the Greenwich Bank, dated March 27th, 1906; do you find upon that day a deposit in the McCleery account corresponding to the amount of this warrant?

A. I find on that day \$1,209.67, which I assume includes the \$689.67.

Q. Did you have the deposit slips covering the McCleery account at that time?

A. I did not.

Q. Do you find any drafts corresponding in amount to the amount of this warrant upon the McCleery account at that time?

A. No.

*Q.* Do you find any deposit in the Walker account at that time corresponding in amount to the amount of this warrant?

*A.* No.

*Q.* Warrant No. 6,173, dated April 2nd, 1906, in the sum of \$648.05, payable to Thomas A. Tydings, being Exhibit No. 215, is endorsed Thomas A. Tydings, James McCleery, and bears the receipt stamp of the Greenwich Bank dated April 5th, 1906. Do you find a deposit in the McCleery account upon that day corresponding in amount to the amount of this warrant?

*A.* Yes, exactly the same amount, \$648.05.

*Q.* Do you find any draft upon the McCleery account at this time corresponding in amount to the amount of this warrant?

*A.* Yes, April 14, 1906, \$348.05.

*Q.* How many days after the deposit is that draft?

*A.* Nine days.

*Q.* What relation, if any, does the amount of that draft bear to the amount of this warrant?

*A.* Exactly \$300 less than the warrant.

*Q.* Do you find any deposit in the Walker account at this time corresponding to the amount of that draft or the amount of this warrant?

*A.* I do, exactly corresponding to the amount of the draft, on the same day, April 14, 1906, \$348.05.

*Q.* Then the draft upon the McCleery account and the deposit in the Walker account were upon the same day?

*A.* They were upon the same day.

*Q.* And identical in amount?

*A.* Identical in amount.

*Q.* Warrant No. 17,044, dated April 19, 1906, in the sum of \$359, payable to Thomas A. Tydings, being Exhibit No. 178, is endorsed Thomas A. Tydings and James McCleery, and bears the receipt stamp of the Greenwich Bank dated April 21, 1906. Do you find upon that day any deposit in the McCleery account corresponding in amount to the amount of this warrant?



A. I have not traced that.

Q. You mean you have not found any—

A. I have not found any amount corresponding to that.

Q. Warrant 70,042 dated April 19, 1906, in the sum of \$257.40, payable to Thomas A. Tydings, being Exhibit No. 178, is endorsed Thomas A. Tydings and James McCleery and bears the receipt stamp of the Greenwich Bank dated April 21, 1906. Do you find on that day any deposit in the McCleery account corresponding in amount to the amount of this warrant?

A. I do not, but on April 21, 1906 I find a deposit of \$682.15 which may contain those two amounts, the one just read and the former warrant read by you.

Q. But that amount does not correspond with the amount of either warrant or the sum of both, does it?

A. It does not.

Q. Do you find any draft upon the McCleery account at this time which bears any relation to the amount of this warrant?

A. I do not.

Q. Do you find any draft upon the McCleery account at this time which bears any relation to any deposit in the Walker account?

A. I do.

Q. What?

A. April 30, 1906, \$402.15, or just \$280 less than the deposit in the McCleery account, which was on the 21st, which is exactly the same as one of the deposits in the Walker account on the same date, April 30, 1906.

Q. Well, what was the deposit in the Walker account upon that day?

A. The deposit in the Walker account on April 30, 1906 was \$818.81. I have consulted the deposit slip and find that it was composed of two items, \$416.66 and \$402.15.

Q. Now, do you mean that you consulted the deposit slip for that particular object or that you got at this inferentially, as in the former case?

A. I mean that I consulted the deposit slip for this particular deposit.

Q. That is, you had in your possession for examination the actual deposit slip relating to this specific deposit, is that right?

A. That is right.

Q. And you found that deposit to be made up of those two items, is that right?

A. That is right.

Q. You say one of those items, \$402.15, corresponds to the draft upon the McCleery account made on the same day, is that right?

A. Exactly.

Q. Corresponds in amount?

A. In amount exactly.

Q. Warrant No. 18,306, dated April 27, 1906, in the sum of \$688.60, payable to Thomas A. Tydings, being Exhibit No. 178-C, is endorsed Thomas A. Tydings, James McCleery, and bears the following stamps "Received payment May 3, 1906, National Bank of North America, New York. Pay to the order of National Bank of North America, New York, May 3, 1906, Empire Trust, H. M. Couch, Secretary." Do you find any deposit in the McCleery account at this time corresponding in amount to the amount of this warrant?

A. I do not.

Q. Do you find any draft upon the McCleery account at this time bearing any relation to any deposit in the Walker account at this time?

A. I do, and bearing relation to the amount of this warrant.

Q. What is that draft upon the McCleery account?

A. The draft on the McCleery account—there were two in number, on the date of May 12, 1906. The drafts were \$413.60 and \$75, or a total of \$488.66, an even \$200 less than the amount of the warrant, and one of those drafts, \$413.60, corresponded identically with the

amount of deposit on the same day in Mr. Walker's account of \$413.60.

*Q.* Warrant 22,702, dated May 21, 1906, in the sum of \$696.41, payable to Thomas A. Tydings, being Exhibit No. 178-D, is endorsed Thomas A. Tydings, James McCleery, and bears the receipt stamp of the Greenwich Bank, dated May 26, 1906. Did you find in the McCleery account upon that day a deposit equal in amount to the amount of this warrant?

*A.* I did, exactly the same.

*Q.* What is that amount?

*A.* \$691.41.

*Q.* Did you find at this time any draft upon the McCleery account corresponding in any way to the amount of this warrant?

*A.* I did, June 1, 1906, of \$396.41, which is an even \$300 less than the amount of the warrant.

*Q.* Did you find any deposit in the Walker account corresponding to the amount of that draft or to the amount of this warrant?

*A.* I did not, inasmuch as no one of the deposit slips of June, 1906 was shown me for the Walker account.

*Q.* Warrant 9,898, dated June 1, 1906, in the sum of \$888.43, payable to Thomas A. Tydings, being Exhibit No. 216, is endorsed Thomas A. Tydings, James McCleery, and bears the receipt stamp of the Greenwich Bank dated June 7, 1906. Did you find in the McCleery account upon that day any deposit equal in amount to the amount of this warrant?

*A.* I did, exactly the same amount, \$888.43.

*Q.* Did you find any draft upon the McCleery account at this time corresponding in any way to the amount of this warrant?

*A.* I did, on June 16, 1906, \$638.43, or just an even \$250 less than the amount of the warrant and the deposit in McCleery's account.

*Q.* How many days after the deposit was that draft?

*A.* That was eleven days afterwards.

*Q.* Did you find in the Walker account any deposit at this time corresponding in amount to the amount of that draft or to the amount of this warrant?

*A.* On the same day, June 16th, I found a deposit in Walker's account of \$671.43, which corresponds only as to the cents to the amount of the draft from McCleery's account on that same day.

*Q.* Did you have the deposit slips of Mr. McCleery's account for this time?

*A.* I did not.

*Q.* Warrant No. 26,776, dated June 15, 1906, in the sum of \$689.05, payable to Thomas A. Tydings, being Exhibit No. 178-E, is endorsed Thomas A. Tydings, James McCleery, and bears the receipt stamp of the Greenwich Bank dated June 22, 1906. Did you find in the McCleery account upon that day any deposit equaling in amount the amount of this warrant?

*A.* I did, and it equaled exactly the amount, \$689.05.

*Q.* Did you find any draft upon the McCleery account corresponding in any way to the amount of this warrant?

*A.* I did, eight days later, June 30, 1906, \$389.05, or just \$300 even less than the amount of the warrant.

*Q.* Did you find any deposit in the Walker account at this time corresponding in amount to the amount either of that draft or of this warrant?

*A.* I did, on the same day, June 30, 1906, \$409.05 total deposit.

*Q.* Did you have the deposit slip for the Walker account for that date?

*A.* I did not.

*Q.* Was that deposit made upon the same day as the draft upon the McCleery account?

*A.* It was made upon the same day as the draft from the McCleery account and was a total of \$409.05.

*Q.* Warrant No. 31,884, dated July 21, 1906, in the sum of \$689.34, payable to Thomas A. Tydings, being Exhibit No. 178-F, is endorsed by Thomas A. Tydings, James McCleery, and bears the receipt stamp of the

Greenwich Bank dated July 27, 1906. Did you find in the McCleery account upon that day a deposit equaling in amount the amount of this warrant?

A. Exactly the same amount, \$689.34.

Q. On the same day?

A. On the same day.

Q. Did you find any draft upon the McCleery account at this time corresponding in any way to the amount of this warrant?

A. I did, August 1, 1906, \$489.34 or an even \$200 less than the amount of the deposit.

Q. Did you find any deposit in the Walker account at this time equaling either the amount of that draft or this warrant?

A. I did, on the same day, August 1, 1906, there was a total of \$906 deposited to the Walker account, which I was able by consulting the deposit slip which was given me to divide into the amounts as shown on the deposit slip of \$489.34 and \$416.66.

Q. You had the deposit slip for this particular deposit, is that right?

A. I did.

Q. And you say it showed those two items upon the slip?

A. Those two items, \$489.34 and \$416.66.

Q. What relation does the \$489.34 item on the deposit slip bear to the McCleery draft?

A. It is exactly the same amount.

Q. And you say the deposit and draft were made upon the same day?

A. They were made upon the same day.

Q. What relation if any does the amount of the deposit, the item of deposit on the Walker account bear to the amount of this warrant?

A. It is exactly an even \$200 less than the amount of the warrant.

Q. Warrant No. 14,639, dated August 20, 1906, in the sum of \$712, payable to Thomas A. Tydings, being Ex-

libit No. 217, is endorsed by Thomas A. Tydings and James McCleery and bears the receipt stamp of the Greenwich Bank dated August 24, 1906. Warrant No. 14,640, dated August 20, 1906, in the sum of \$627.58, payable to the order of Thomas A. Tydings, being Exhibit No. 218, is endorsed by Thomas A. Tydings and James McCleery, and bears the receipt stamp of the Greenwich Bank dated August 24, 1906, the same day. Did you find in the McCleery account upon that day a deposit equaling in amount the amount of either one or the sum total of the amounts of these warrants?

A. I did, I found an amount equal to the sum total of these warrants deposited in the Greenwich Bank on the 24th day of August, 1906, or \$1,339.58.

Q. Did you find any draft upon the McCleery account at that time corresponding in any way to the amount of either one of these warrants or the sum total?

A. Not exactly.

Q. Did you find any deposit in the Walker account at this time corresponding in amount to the amount of either one of these warrants or the sum total of them?

A. I did not.

Q. Did you have the deposit slips for that time?

A. I did.

Q. And you did not find any corresponding, is that right?

A. Not to these amounts.

Q. Warrant No. 35,449, dated August 16, 1906, in the sum of \$693.96, payable to Thomas A. Tydings, being Exhibit No. 178-G, is endorsed Thomas A. Tydings and James McCleery, and bears the receipt stamp of the Greenwich Bank dated August—it look like August 25, 1906. Did you find any deposit at this time in the McCleery account corresponding in amount to the amount of this warrant?

A. I did, exactly the same amount, \$693.96.

Q. On what day?

A. On the 21st of August, 1906.

*Q.* Did you find any draft upon the McCleery account at this time corresponding in any way to the amount of that deposit or of this warrant?

*A.* Not to this warrant, but I did find a deposit or a draft from the McCleery account similar to the sum of \$693.96, or this deposit, and the \$1,339.58 deposit which I formerly read, it being \$633.54, or an even \$1,400 less than the amount of those two items.

*Q.* You mean that the draft upon the McCleery account on the 1st of September, 1906 is an even \$1,400 less——

*A.* Less than the amount of the warrants read by you, No. 14,639, 14,640 and 35,449.

*Q.* And what is the amount of that draft?

*A.* \$633.54.

*Q.* Did you find at this time a deposit in the Walker account corresponding in any way to the amount of that draft upon the McCleery account?

*A.* I do, being exactly the same.

*Q.* What is that amount?

*A.* \$653.54, on the same day, September 1, 1906.

*Q.* What relation if any does that sum deposited in the Walker account on that day bear to any one or all three of these warrants?

*A.* It is an even \$1,400 less than the sum of those three warrants.

*Q.* Warrant No. 38,566, dated September 13, 1906, in the sum of \$598.50, payable to Thomas A. Tydings, being Exhibit No. 178, is endorsed by Thomas A. Tydings and James McCleery and bears the receipt stamp of the Greenwich Bank dated September 19, 1906. Do you find upon that day in the McCleery account any deposit equal in amount to the amount of this warrant?

*A.* Exactly the same, \$598.50, September 19, 1906.

*Q.* Warrant No. 38,935 dated September 18, 1906, in the sum of \$694.50, payable to Thomas A. Tydings, being Exhibit No. 178-I, is endorsed by Thomas A. Tydings and James McCleery and bears the receipt stamp of

the Greenwich Bank dated September 22, 1906. Do you find any deposit in the McCleery account upon that day equal in amount to the amount of this warrant?

A. Exactly the same, \$694.50.

Q. Now, do you find any draft upon the McCleery account at this time equal in amount to either one of these warrants?

A. I do not.

Q. Do you find a draft which bears any relation to either one or both of these warrants?

A. I do. The sum of the two compares as to the last dollar sign and cents.

Q. What is the sum of those two warrants?

A. \$1,293.

Q. What is the amount of the draft upon the McCleery account and when was it made?

A. September 29, 1906, \$553.

Q. Do you find any deposit in the Walker account at this time corresponding in any respect to the amount of that draft upon the McCleery account or to this warrant?

A. I do, exactly the same amount and on exactly the same day.

Q. Exactly the same amount as what?

A. As the draft on the McCleery account.

Q. And that is the sum of what?

A. That is the sum of the two warrants——

Q. No, I ask what is the amount of the deposit in the Walker account?

A. The amount of the deposit in the Walker account was \$553 or the same amount as the draft against the McCleery account, both on the same day, September 29, 1906.

Q. And what relation if any do you say that deposit of \$553 in the Walker account on the 29th of September bears to either one or both of these warrants?

A. Only in that this amount is the same as to the last dollar sign and the cents.

Q. Voucher No. 42,730, dated October 15, 1906, in



the sum of \$651.30, payable to Thomas A. Tydings, being Exhibit No. 178-J, is endorsed Thomas A. Tydings and James McCleery and bears the receipt stamp of the Greenwich Bank dated October 18, 1906. Do you find upon that day any deposit in Mr. McCleery's account equal in amount to the amount of this warrant?

A. I do, exactly the same amount, \$651.30.

Q. Do you find at that time any draft upon the McCleery account corresponding in any way to the amount of this warrant?

A. I do, on October 27, 1906, which was nine days later, a draft of \$501.30, which is exactly \$150 less than the amount of the deposit.

Q. Do you find any deposit in the Walker account at this time corresponding in any way to the amount of that draft upon the McCleery account or the amount of this warrant?

A. I do, corresponding exactly to the amount of the McCleery draft of \$501.30 on the same day that the draft was drawn.

Q. Was that deposited as a separate item or with other items?

A. It was deposited with an item of \$12, as indicated by the deposit slip.

Q. Did you find those two items upon the deposit slip?

A. I did.

Q. You had the deposit slip for this individual deposit?

A. I had the deposit slip for this individual deposit.

Q. Was that item of \$501.30 deposited in the Walker account—upon what day was it deposited?

A. October 27th, 1906.

Q. What day was the draft upon the McCleery account made?

A. October 27th, 1906.

Q. And they are the same in amount?

A. They are the same in amount.

Q. Warrant No. 43,860, dated October 23rd, 1906, in

the sum of \$691.41, payable to Thomas A. Tydings, being Exhibit No. 178-K, is endorsed by Thomas A. Tydings and James McCleery, and bears the receipt stamp of the Greenwich Bank, dated October 27th, 1906. Do you find upon that day any deposit in the McCleery account corresponding in amount to the amount of this warrant?

A. I do, exactly the same amount, \$691.40.

Q. Do you find any draft upon the McCleery account at this time corresponding in any way to the amount of this warrant?

A. I do, \$391.41, November 3rd, 1906.

Q. What relation does that bear to the amount of the warrant?

A. It is an even \$300 less than the amount of the warrant and the amount of the deposit in the McCleery account.

Q. Do you find any deposit in the Walker account at this time corresponding in any way to the amount of that draft or this warrant?

A. I do, exactly corresponding to the amount of the draft, on the same day, November 3rd, 1906, \$391.41.

Q. And what relation does that bear to the amount of this warrant?

A. It is an even \$300 less than the amount of the warrant.

Q. Warrant No. 21,039, dated November 13th, 1906, in the sum of \$592.90, payable to Thomas A. Tydings, being Exhibit No. 219, is endorsed by Thomas A. Tydings and James McCleery, and bears the receipt stamp of the Greenwich Bank, dated November 17th, 1906. Did you find upon that day any deposit in the McCleery account corresponding in amount to the amount of this warrant?

A. I did, exactly the same amount, \$592.90.

Q. Did you find any draft upon the McCleery account at this time corresponding in any way to the amount of this warrant?

A. I did, corresponding exactly to the amount of the warrant, \$592.90, on December 1st, 1906.

*Q.* Did you find any deposit in the Walker account corresponding in any way to the amount of this warrant?

*A.* I did, exactly corresponding to the amount of the warrant, on December 1st, 1906, the same day as the draft was made upon the McCleery account.

*Q.* Then you say that in this case the amount deposited in Mr. Walker's account upon the 1st of December, 1906, exactly equaled the amount of the draft upon Mr. McCleery's account made the same day?

*A.* I do.

*Q.* And do you say the amount deposited in Mr. Walker's account exactly equaled the amount of this warrant in this case?

*A.* I do.

*Q.* Then in this case the amount of the warrant appears as deposited in Mr. McCleery's account and appears as drawn upon Mr. McCleery's account on the 1st of December, is that right?

*A.* That is right, with this exception, that there were other deposits made on that day, but the deposit slip which I have shows that the two items, \$300 and \$292.90, were deposited on that day, which exactly equals the sum of the draft, \$592.90.

*Q.* And the draft upon the McCleery account and the deposit in the Walker account were made upon the same day, is that right?

*A.* They were made upon the same day.

*Q.* Warrant No. 47,839, dated November 17th, 1906, in the sum of \$689.55, payable to Thomas A. Tydings, being Exhibit No. 174, is endorsed by Thomas A. Tydings and James McCleery and bears the receipt stamp of the Greenwich Bank dated November 26th, 1906. Did you find upon that day any deposit in the McCleery account corresponding in amount to the amount of this warrant?

*A.* I did, exactly the same amount, \$689.55.

*Q.* Upon the same date?

*A.* Upon the same date.

*Q.* Did you find at this time any draft upon the Mc-

Cleery account corresponding in any way to the amount of this warrant?

A. I did, \$389.55 was drawn on December 8th, 1906, which is exactly \$300 less than the amount of the warrant and the deposit in the McCleery account.

Q. Did you find any deposit in the Walker account at this time corresponding in any way to the amount of that draft or of this warrant?

A. I did, on the same day that the draft was made, December 8th, 1906, there was a deposit made in the Walker account of \$389.55 or the exact amount of the draft upon the McCleery account.

Q. You say that that deposit in the Walker account was made upon the same day as the draft upon the McCleery account?

A. I did.

Q. And that they are identical in amount?

A. They are identical in amount.

Q. Voucher No. 51,378, dated December 18th, 1906, in the sum of \$680.70, payable to Thomas A. Tydings, being Exhibit No. 176, is endorsed Thomas Tydings and James McCleery, and bears the receipt stamp of the Greenwich Bank dated December 21, 1906. Do you find upon that day any deposit in the McCleery account corresponding in amount to the amount of this warrant?

A. I do, exactly the same amount, \$680.70.

Q. Do you find any draft upon the McCleery account at that time corresponding in amount to the amount of this warrant in any way?

A. I do, \$250.70 on December 29th, 1906.

Q. What relation if any does that bear to the amount of this warrant?

A. It is an even \$450 less than the amount of the warrant.

Q. Do you find any deposit in the Walker account corresponding in any way to the amount of this warrant at that time?

A. Not that I could trace.

*Q.* Or to the amount of the McCleery draft?

*A.* Or to the amount of the McCleery draft.

*Q.* Did you have the deposit slip for that time?

*A.* I had the deposit slips for that time, but I found among them no deposit for this particular date.

*Q.* Warrant No. 2,167, dated January 18, 1907, in the sum of \$312.90, payable to Thomas A. Tydings, being Exhibit No. 220, is endorsed by Thomas A. Tydings and James McCleery, and bears the receipt stamp of the Greenwich Bank dated January 24, 1907. Did you find on that day any deposit in the McCleery account corresponding in amount to the amount of this warrant?

*A.* I haven't that warrant here.

*Q.* Did you examine into the case of this warrant, Mr. Scudder?

*A.* I cannot recollect from just your reading of the warrant.

*Q.* (Handing paper) Will you take the warrant now, Ex. No. 220, and see whether you find any deposit in the McCleery account corresponding to that amount?

*A.* I cannot tell about that on account of the deposit

*Q.* You cannot find the deposit corresponding to the amount of this warrant?

*A.* I cannot find a corresponding amount. On the 24th of January, 1907, I can find a very large amount there which probably includes it.

*Q.* Do you find any draft upon that day corresponding in amount?

*A.* I do not.

*Q.* Or at that time?

*A.* Nor at that time.

*Q.* Warrant No. 2,528, dated January 23, 1907, in the sum of \$503.67, payable to Thomas A. Tydings, being Exhibit No. 221, is endorsed by Thomas A. Tydings and James McCleery and bears the receipt stamp of the Greenwich Bank dated February 19, 1907. Do you find

upon that day any deposit in the McCleery account corresponding in amount to the amount of this warrant?

A. What was that, 2,528?

Q. Warrant 2,528?

A. I do, exactly the same amount, \$503.67.

Q. On what day?

A. February 19, 1907.

Q. Do you find any draft upon the McCleery account at this time corresponding in any way to the amount of that warrant?

A. I do, March 2, 1907, \$303.67, or an even \$200 less than the amount of the deposit or the warrant.

Q. Do you find any deposit in the Walker account at this time corresponding in amount or in any other way to the amount of this warrant?

A. I do not.

Q. Warrant No. 8,181, dated February 26, 1907, in the sum of \$687.53, payable to the order of Thomas A. Tydings, being Exhibit No. 222, is endorsed by Thomas A. Tydings and James McCleery and bears the receipt stamp of the Greenwich Bank dated March 2, 1907. Did you find upon that day any deposit in the McCleery account corresponding in amount to the amount of this warrant?

A. I did, exactly the same amount, \$687.53.

Q. Did you find any draft upon the McCleery account at this time corresponding in any way to the amount of this warrant?

A. I did, \$237.53 on March 23, 1907, or an even \$150 less than the amount of the warrant or the deposit in the McCleery account.

Q. Do you find any deposit in the Walker account at this time corresponding in amount to the amount of this deposit or that draft?

A. None at all.

Q. Warrant No. 12,152, dated March 26, 1907, in the sum of \$656.15, payable to Thomas A. Tydings, being Exhibit No. 223, is endorsed by Thomas A. Tydings and

James McCleery and bears the receipt stamp of the Greenwich Bank, dated March 29, 1907. Did you find upon that day any deposit in the McCleery account corresponding in amount to the amount of this warrant?

A. I did, exactly the same amount, \$656.45.

Q. On what day?

A. On March 29, 1907.

Q. Do you find at this time any draft upon the McCleery account corresponding in any way to the amount of that warrant?

A. I do, April 8, 1907, \$406.45, or an even \$250 less than the amount of the warrant or the deposit in the McCleery account.

Q. Do you find any deposit in the Walker account at this time corresponding in any way to the amount of the McCleery draft or of that warrant?

A. I do not.

Q. Mr. Scudder, will you tell us the date of the last deposit in the Walker account in the case of which you were able to find a similarity with either a McCleery draft or a warrant?

A. December 8, 1906.

Q. December 8, 1906 is the last day upon which such a deposit is made, is that right?

A. I would not say that. It is the last day that I could trace.

Q. In those cases where you found deposits in the Walker account which bore a similarity either to McCleery drafts or to the warrants, how did they correspond or what relation in time did they have to the time of the McCleery draft?

A. With one exception, they were on the same day.

Q. What was the exception?

A. In the case of Warrant 9,220, where the draft was made March 17, 1906, and the deposit in the Walker account was made April 7, 1906.

Q. You say that in all the other cases the deposit in the Walker account and the draft upon the McCleery account were upon the same day, is that right?

A. In every other case it was on the same day.

Q. Now, out of the total number of warrants which I have read to you, in how many cases were you able to trace in any way or in the way that you have described in your testimony the deposits into the Walker account?

A. I will have to count them up.

Q. Go ahead and count it up. I want to know the total number of instances where you were able to trace it?

A. Compared with the total number of warrants?

Q. First give us the total number of warrants and then the total number of instances in which you were able to trace it.

A. The total number was 48; the total number that we were able to trace in the way described in the Walker account was 28.

Q. Then you were able to trace 28 out of the total of 47?

A. I was.

Q. For how large a proportion of the time covered by these warrants did you have the deposit slips of the Walker account in the Greenwich Bank?

A. Only for the year 1906, from April 21st up to and including a few deposits in 1907, up to March 13, 1907, with the exception of a number of deposit slips not being given me, and I cite the case of June and most of July, 1906.

Q. Well, you say that April 21, 1906 to March 13, 1907 you had the deposit slips of the Walker account in the Greenwich Bank, with the exception of the months of June and July?

A. June and a part of July, and possibly some of the other deposit slips.

Q. With the exception of the months of June and a part of July?

A. Yes.

Q. Now, for the entire year 1905 did you have them?

A. I did not.



*Q.* You were without them for the entire year 1905, is that right?

*A.* Yes, and 1906 up to April 21, 1906.

Commissioner MITCHELL.—That is all, Mr. Seuder.

Adjourned to May 14, 1907, at 10.30 A. M.

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